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Isla Palenque Revisited: An Archaeological Community Study

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ISLA PALENQUE REVISITED: AN ARCHAEOLOGICAL COMMUNITY STUDY

by

JOHNNY BOGLE

Under the Direction of Dr. Jeffrey Glover

ABSTRACT

Isla Palenque is a small island located on the western coast of Panama's Chiriquí province. The island was part of a regional investigation in 1961 and 1971 by Dr. Olga Linares who was analyzing distinctive patterns related to social developments in Panama's diverse ecology (Linares 1980). Given the regional focus of her research, she did not collect detailed, community-level data on Isla Palenque. This investigation aims for that more detailed understanding through a settlement study to elucidate aspects of the social complexity of this site. This nuance is extremely important in trying to understand this part of Central America that is characterized by much variability in the material culture. Labeled by Linares as the possible

seat of a “Paramount Chiefdom”, Isla Palenque invites us to ask what that means, how we can assess that notion, and more importantly what it says about the people who inhabited the island.

ISLA PALENQUE REVISITED: AN ARCHAEOLOGICAL COMMUNITY STUDY

by

JOHNNY BOGLE

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of

Master of Arts

in the College of Arts and Sciences

Georgia State University

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ISLA PALENQUE REVISITED: AN ARCHAEOLOGICAL COMMUNITY STUDY

by

JOHNNY BOGLE

Committee Chair: Jeffrey B. Glover

Committee: Nicola Sharratt

Scott Palumbo

Electronic Version Approved:

Office of Graduate Studies

College of Arts and Sciences

Georgia State University

May 2015

DEDICATION

This study is dedicated to three Panamanian women who loom large in my conception of the country I was born in: My Mother, My Grandmother and Dr. Olga Linares (Rest in Peace).

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1 INTRODUCTION

Isla Palenque, located in Panama's Chiriquí Province, contains a multi-component site that is part of the Gran Chiriqui designated culture area that also includes much of southeastern Pacific Costa Rica. Based on preliminary work by Dr. Linares (1963, 1980), the site was occupied during the Formative period between AD 300-1500. Dr. Linares described the site as an 8.5 hectare continuous nucleated settlement on the center of the island that included a cemetery. The early research on the island, which mainly focused on regional questions, lacked a comprehensive spatial study of the entire island to fully understand the actual degree of nucleation of the settlement there. This has resulted in many unanswered question regarding the nature of the people who inhabited the island during pre-Columbian times.

This study aims to better understand the entire island with a survey focusing on the areas outside of the previously studied site. This allows me to better assess the possible organization of the island's settlements and how they may have changed over time. This is an important question because it helps to elucidate Isla Palenque's connection to the broader culture. The Gran Chiriquí culture has demonstrated extreme diversity in cultural materials, but at the same time, it has been argued to have been part of a similar regional culture which may have expressed dual organizational settlement patterns, possibly indicative of "chiefdom" stratification (Frost 2009). The study of external areas on the island for spatial comparison, become critical in the assessment of this possibility.

Robert Frost's (2009) recent studies on the Pacific side of Costa Rica have provided some models of dual spatial distributions, associated with both cemeteries and settlements, which have been proposed as markers of this regional identity. While this model is just one of several

different models proposed for the region, it does provide a basis for the question I am addressing through this settlement study. My question aims to understand what the spatial extent of the island settlement was, and how it compares to the organizational models proposed by Frost and others (Frost 2009, Helms 1979). The elucidation is important to understand the past occupations, but the urgency of this study is also highlighted by the current construction on the island. Ongoing development of the island is a reality, that despite the best efforts to preserve the ecology and archaeology there, will impact the ability to understand the people of Isla Palenque's past.

Following this introduction, in chapter 2, I address the "chiefdom" concept from its historical development to more contemporary notions. Chapters 3 and 4 cover the historical aspects of the culture and the archaeology that has been done on the island. Chapter 5 describes different sites that are used to understand various settlement patterns in the region for comparison. Chapter 6 describes the island's current state. Chapter 7 through 9 details the methodologies used and the results obtained in the study. The thesis is concluded in chapter 10.

2 THEORY

The following section discusses some of the major issues associated with the terminology used in defining societies of lower Central America. It covers some of the major researchers who were instrumental in the historical development of the “chiefdom” term, how it has been used, and how theoretical models evolved over time. Following this, an overview of some contemporary foreign and Central American researchers, details how the term is being conceptualized in current research and the theoretical and methodological trends that are developing.

2.1 The “Chiefdom” Concept

The term “Chiefdom” in modern archaeological discourse is one that elicits strong responses and debates among researchers (e.g., Earle 1997, Pauketat 2007, Redmond 1994a). The classification is laden with meanings and values that incorporate biases regarding political and evolutionary concepts that have oscillated over time. The analysis of the theoretical position relating to the concepts of “chiefdoms” is salient to my study because of the general association of Panama with the term, and more specifically because Dr. Olga Linares’ interpreted Isla Palenque as the probable seat of a "Paramount chiefdom" (Linares 1980:73). Due to these factors, the term has to be critically analyzed, and its utility has to be evaluated.

2.2 The Neo-Evolutionary View

Early typologies were initially developed as part of neo-evolutionary frameworks that gained popularity in archaeology in the 1960s and 1970s. The resurgence of cultural evolutionism in the period after World War II was the major factor that led to the development of social typologies. This was a reaction to the “growing consensus that Boasian anthropology was unable to explain cultural changes” (Trigger 2006: 387). This approach was taken on by a new generation of American anthropologist such as Leslie White and Julian Steward. Although both anthropologists shared a view that rejected the former paradigms particularism, their conceptual frameworks differed in the causal factor determining what was considered progress. White’s views, reflecting a positivistic generalization through his technological characterization, were extremely deterministic. His equation for culture demonstrated the limited factors he considered when defining culture: $\text{Culture} = \text{Energy} \times \text{Technology}$ (Trigger 2006:388). Julian Steward’s views, on the other hand, while utilizing ecology as the driving force of multiple evolutionary trajectories, still maintained that there were significant variations along cultural development dictated by ecological constraints (Trigger 2006: 389).

Elman Service, influenced by both White and Steward, soon followed in the 1960s with a model for evolutionary progress. He developed a four-fold classification of societies that was associated with specific kinds of sites and settlements that he referred to as bands (mobile hunter-gatherer groups), tribes (segmentary societies), chiefdoms and states (Sahlins and Service 1960). His model described the characteristics associated with these different groups in terms of numbers, social organization, economic organization, settlement pattern, religious organization, and architecture. For chiefdoms , the salient features of his social typology included: populations

of 5000-20,000+, ranking of people based on kinship, lineage, and a warrior class; economy based on central accumulation, redistribution and some craft specialization; settlement representing fortified centers with ritual and ceremonial centers headed by a chief, and architecture reflecting large scale monuments (Renfrew and Bahn 2006:172).

The Neoevolutionist paradigm evolved through the 1980s, but became the focus of much criticism. Even though researchers such as Kent Flannery, Joyce Marcus, and Timothy Earle utilized a comparativist lens, a growing number of researchers critiqued the neo-evolutionary approach as limited by reductionist unilinear models, and inadequate conceptualizations of power and space (Trigger 2006). In response to these growing critiques, Timothy Earle and Jonathan Haas organized an advanced seminar on chiefdoms to reanalyze the concept (Earle 1991). Participants, recognizing the inadequacies of earlier perspectives of analysis (non-integration of specialized subsistence economies for redistribution, scale too small for regional irrigation systems, low population densities, etc...), sought a new consensus on how to conceive and study social evolution within chiefdoms (Earle 1991). Their aim was to try move and away from a “preoccupation of formal characteristics to focus more on the dynamics of their political institutions” (Earle 1991:2). Typologies were a central focus of the seminar. While the consensus of seminar participants “rejected chiefdoms as a unilineal stage of evolution given the considerable variation, some still held that it was a useful analytic category” (Earle 1991:2). Some advocated for refinement of typologies. Earle himself had previously refined Services’ classifications in his book, “The Evolution of Human Societies” (Earle 1987). His model had modified the typologies to: Family Level Societies, The Regional Group, Chiefdoms, and States (Earle 1987). Earle’s aim, while noting the obvious differences, was more focused on understanding certain common evolutionary processes.

The acknowledgement of the complexity led seminar participants to consider different schemes for understanding variability in terms of scale (simple vs. complex based on population sizes), basis of finance (staple vs. wealth), and structure (group corporate labor vs. individualizing special housing or burials) (Earle 1991:3). All these concepts helped in the formulation of the seminar's consensus that chiefdoms had to be understood as political systems where differential strategies for the acquisition and control over economy, war, and ideology were major factors. Another acknowledged factor was the environment's impact. It was seen as another reason for the variability due to the different opportunities for control and finance of surplus that may have enabled differential trajectories. Earle and other seminar members acknowledged that "all the [aforementioned] factors, among others, were constantly changing, highly contested, and reflected the fractious cycling that occurred due to multifaceted opposing forces of centralization and decentralization" (Earle 1991:13). The synthesis of the seminar was described as both exciting and discouraging in their progress to understand chiefdoms. This highlights the difficulty that Neoevolutionists continued to grapple with in their attempt to understand the complexity associated with "chiefdoms" and how to study it.

2.3 Post-Processualist response and contemporary views

Scholars in the beginning of the 21st century continued the debate regarding typological utility in relation the chiefdom concept. In opposition to the Neoevolutionist view, Tim Pauketat, among others, promoted the post-processualist paradigm that aimed to completely discard typological classifications to focus on descriptions of what people did, and how they experienced social life through the interconnected theories of practice and agency, memory, and landscape

(Pauketat 2007). Pauketat is an archaeologist who is known for his work at the Mississippian site of Cahokia. He has been explicitly critical of Neoevolutionist as well as Processual archaeologists in their attempt to understand change through long term regularities. The title of his book, *Chiefdoms and other Archaeological Delusions* (2007), declares his position on the classification of chiefdoms quite obviously. In this book describing his analysis of Cahokia, Pauketat brings up many of the issues with classification schemes due the incredible complexity reflected at the site. Of Cahokia, he remarked that “while it is exceptional, Cahokia does not seem to fit one’s expectations of a typical anything. It was too big, too early, and too far north to fit easily within any explanatory framework” (Pauketat 2007:135-136). In demonstrating the difficulty of trying to classify Cahokia, he highlighted some of the salient historical interpretations of the site that changed over time. Through the 20th century, these changing interpretations have included Cahokia as the natural remnants of Pleistocene age sandy terraces, a series of simple hierarchical chiefdoms, and currently a city (Pauketat 2007). In his final analysis, Pauketat considered the concept of “chiefdoms” an obstacle to the understanding of what really happened in the ancient world (Pauketat 2007).

Through the debates, Neoevolutionists continued refinement of the concept. Some contemporary archaeologists in the camp held to the belief that the “broad classifications” such as “chiefdoms”, were still useful at the preliminary stage of analysis, “especially if they were not seen as rigid divisions” (Renfrew and Bahn 2006: 170). Elsa Redmond is one of the contemporary Neoevolutionist that continues to refine Seward, White and Carneiro’s early concepts. As opposed to Pauketat, who sees no utility in any naming conventions or refined descriptions associated with chiefdoms, Redmond adheres to this practice. She identifies a chieftaincy as any supradomestic political unit that defers to individual leadership (Redmond

1994a). Warfare is an integral part of the association that Redmond attributes to her model of chiefdom societies: Through her analysis of Neotropical social groups, Redmond (1994a, 1994b) emphasizes the role conflict and demographic change had as catalysts for the emergence of hereditary leadership (Redmond 1994a). She attributes Carneiro's models of population pressures and circumscription as prime factors for warfare and eventual chiefdom ascendancy (Renfrew and Bahn 2006). Redmond has also done some work in Panama and has attempted to apply some of her models in the central part of the country (Redmond 1994b). Her work has been contested by other contemporary researchers on the grounds of a lack of evidence for increased population densities as a factor for warfare (Haller 2004). There are other researchers who have devoted more time studying the pre-historic societies in Panama and have developed their own viewpoint regarding "chiefdoms".

2.4 Influential reserachers in the region

A major figure in Panamanian archaeology is Dr. Richard Cooke. He is a staff archaeologist from the Smithsonian Tropical Research Institute (STRI) who has been doing research in the central part of the country since the 1970s. He received his PhD from the Institute of Archaeology, UCL, England, in 1972 where his studies focused on the archaeology of Coclé in central Panama. It is hard to ascertain his theoretical position, but maybe this reflects a foreign perspective that does not dichotomize the concept. One of his publications covering chiefdom societies (Cooke2005) demonstrates how he utilizes various ideas while not explicitly adhering to any camp. In this work, he makes some salient points about the concept of chiefdoms and their implications for Panamanian pre-contact societies.

He begins by using a definition from Earle (1991) defining chiefdoms as a “kin-based, moderately stratified societies, which lacked writing, did not live in cities, and were organized into small, sometimes populous but not politically expansive territories” (Cooke 2005:150). He also notes how contemporary researchers (i.e., Drennan 1995) “now prefer multi-causal compared to unicausal (prime mover) explanations for the formation and maintenance of chiefdoms” (Cooke 2005:151). This is somewhat confusing because while he notes influential Neoevolutionist, he also seems to reject the idea of “developmental schemes” or “lateral dichotomization” through the analysis of pottery sequences:

Forcing these data into a progressive developmental scheme, i.e., from some kind of tribe into some kind of chiefdom or into a lateral dichotomization along the same lines obscures the coeval existence until Spanish contact of many types of communities, many levels of population density and nucleation, and different subsistence emphases, often in the same culture area or economic interaction sphere. [Cooke 2005:151]

When Cooke lists his features relating to chiefdoms, his description adds to my uncertainty of his theoretical orientation. He characterizes the hierarchical typologies as being proposed by notable Neoevolutionist, mentions how they have been the focus of disagreement, and still admits that , “[e]ven so, one detects consilience with [the ethnohistorical record] in regard to the commonality of the following features” (Cooke 2005:151). His list of features includes (Cooke 2005:151-153):

- (1) Chiefly power was deeply rooted in genealogical hierarchy and monopolized by males.
- (2) The transference of power within high-rank social units was based as much (or more) on achievement as on ascription and was often accompanied by internecine tension.

- (3) Chiefs advertised their success by accumulative behavior akin to pot latching (involving a certain degree of control over food production in order to finance social gatherings).
- (4) Chiefs and their entourages lived at special settlements, often moving back and forth among various sites (according to Spanish chroniclers they lived in special houses, which may have been confused for meeting houses).
- (5) At sites whose special features allude to their being centers of power, there is a correlation between simple architecture and monolithic sculpture, and symbols of both aggressive behavior and fecundity (expressed by images of human females and maize).
- (6) Frequent warfare focused on raids and skirmishes among rival chiefs in nearby territories and was accompanied by the mistreatment of prisoners, including forced labor, branding, mutilation, and loss of burial privileges.
- (7) A degree of resource redundancy among the most populous or richest chiefdoms prevented the long-term political dominance of any one of them.
- (8) To acquire special sumptuary or ideologically significant badges of offices, which were often exhibited at special places and during burials, chiefs controlled trade routes, especially those that led to distant lands or towards prestige items.

Cooke highlights an issue that is endemic to all research in the country. He emphasizes the heavy reliance on ethnohistoric data that researchers continue to use to interpret Panama's pre-historic societies. He attributes this dependence on the difficulty of trying to understand "[behavioral characteristics] that were easier to glean from the documentary than from the archaeological record" (Cooke 2005:151). Even though researchers in Panama have started to change their designs on how they are addressing questions about chiefdoms, the "descriptions recorded in early sixteenth century Spanish documents and mortuary remains are still the most used groups of data that provide information about the nature of Panamanian chiefdoms" (Haller 2004 :1). While ethnohistorical accounts have been instrumental in providing some insight into indigenous groups in central Panama, they have also affected a bias that impacts how the communities of the region have been conceptualized. The powerful influence of these accounts have been protracted and generalized. Cooke's (2003a) analysis of Spanish primary source material describing warriors going to battle bedecked with shining gold finery is an example of

this imagery. While it does elucidate some aspects of the society, it is not representative of the spatio-temporal complexity of the entire region.

Another influential researcher, who has relied heavily the ethnographic accounts to develop her theories, is Mary Helms. She is an ethnohistorian who has done much analysis centered on the concept of chiefdom societies. Her ideas, building on Carl Sauer's work (1966), demonstrate a theoretical divide among some researchers in Panama regarding high prestige items associated with metallurgy. More specifically, in regards to whether gold was independently sourced and processed in Panama. On one end of the debate Cooke (2003a) argues for the independent sourcing, as opposed to Sauer (1966), who suggests that "during contact, casting and processing of gold was not being practiced in Panama" (Helms 1979:3). Helm's (1979) work builds on this suggestion to argue "long-distance contacts for the acquisition of esoteric knowledge were critical for establishing political power, as opposed to economic gain" (Haller 2004:4). This is an important concept that has to be considered in the analysis of political associations since the archaeological record could possibly provide evidence of long distance trade and resultant stratification. This concept does not only apply to gold. This fact demonstrates how diverse the patterns could be. For example, ceramic trade wares from the Gran Nicoya in northern Costa Rica have been found in Panama's Chiriquí region. But, the lack of other "prestige items" found in some specific sites there also highlights some important questions regarding what constitutes chiefdoms, and how their political power is represented. The question of what constitutes chiefdom is not easy to analyze, and there are continuing theoretical debates about which markers should be used to classify these societies. The debate is not only concerned with what to analyze, but also how to interpret these "prestige goods" from the limited sources in the archaeological record. Haller (2004) provides an example of how the overreliance of limited

archaeological source types, have generalized concepts that may not be fully representative of the complexity:

Mortuary remains in Panama have also been a heavily utilized group of data that has led to chiefdoms being considered and archetypes of cultural development. The excavations during the 1930s and 1940s at the Sitio Conte site (central Panama) have been highly influential in establishing this concept [Haller 2004:1]

Earle (1991) describes much contention in the discussions regarding the overreliance of mortuary data highlighted above. This is a key concern expressed in the struggle to understand how to develop a consensus of classifications used for Lower Central America.

Another influential researcher in the area is Dr. John Hoopes. While he also analyzes “prestige” items such as gold in the region, he asks different questions related to the material record. In contrast to other researchers who try to understand the emergence of chiefdoms, Hoopes (2005) focuses on elucidating a variety of phenomena relevant to the analysis of social complexity. Although not as demonstrative as Pauketat, his focus does seem to deemphasize the value of classifications. Hoopes explains how several contemporary researchers have changed the theoretical focus away from “unilinear evolution, hierarchy, centralization, and chiefdoms to include alternative dimensions such as heterarchy and dual processual strategies that challenge the notion of centralized, chiefly authority at contact”(Hoopes 2005:3). According to Cooke (2005), Hoopes popularized the concept of a Chibchan speaking culture evidenced in part by the movement of gold artifacts from Columbia to Panama. He introduces some alternative concepts (apart from traditional models relating to hierarchy, chiefdoms and leadership) to propose that “corporate based strategies, among them decentralized, knowledge-based priesthoods should be used to provide a new look at the data” (Hoopes 2005:3). Hoopes seemed to be interested in

moving away from issues that had plagued the archeology of this region including the massive typological confusion.

There have been more external researches defining the prehistoric domain in Panama than native scholars. The list of external scholars includes British, German, Spanish and American voices that still dominate the discourse today. But the region is not without its native voice. To understand the viewpoint of some of the native scholars who have done research in western Panama and southeastern Costa Rica, you have to consider the timeframe during their investigations. Beginning with Dr. Olga Linares (Panamanian–American scholar from David, Panama), her research in the region occurred during the early 1960s and 1970s. Linares initial studies were done during the same period that Service’s neo-evolutionary models were being developed. Although Linares made use of the “chiefdom” term in her dissertation, she made no attempt to define it (Linares 1963). The focus of her PhD work was mainly related to defining the cultural chronology for the Gulf region. Her work at this time seemed to mirror the theoretical and methodological innovations developed by her advisor, Gordon Willey at Harvard concerning culture history. Her PhD work was descriptive, inductive and interpretive of culture development /migration based mostly on stylistic changes of the ceramic record of Gulf sites. This was representative of the Cultural Historical approach that did not have human behavior and complexity as its main focus (Trigger 2006).

Her subsequent work (Linares 1971), which involved more extensive study on Isla Palenque, was broader than her PhD work, which was previously focused on just the Gulf region. The new study focused on a broad comparative regional/bi coastal analysis that was aimed to counter the “generalizations defining the tropical forest as macro-environments with limited evolutionary potentials” (Linares 1980:12). Linares’ heavy focus on ecology was representative

of earlier trends that many believed had pushed archeology towards processualism (Trigger 2006:392). It is hard to classify Linares in a certain camp during this period as she incorporates concepts from both neo-evolutionary researchers such as Flannery as well as New Archaeology proponents such as Binford (Linares 1980). Both approaches seemed to have been influential and not mutually exclusive during this period. These paradigms affected the way she considered the societies she studied. Her broad focus and use of terminology relating to “chiefdoms” defined the concept as homogenous and static. She did not escape the critiques that were later placed on other notable researchers who adhered to the conventions of these times. Many of these critiques faulted the use of “simplistic, reductionist tendencies resulting from traditional New Archaeologist comparisons” (Trigger 2005:28). Her focus has to be understood in the context as it was also a reaction to even earlier cultural idiosyncratic models that were considered “old fashioned and unscientific” (Trigger 2006:392). While much critique has been placed on Linares’ studies, some contemporary researchers do note some positives. There was some evidence in her work of changing archaeological paradigms that would later impact the field. Holmberg (2009) describes Linares’ theoretical orientation as being mostly representative of the New Archaeology but she also noted her nuance: “Linares made some exceptions in her work relating to agency in how she clearly attributed the sources of human adaptation to individuals and new intangible ideas or perceptions” (Holmberg 2009:94).

While Linares was one of earliest native archaeologist to study western Panama, other native researchers across the border in Costa Rica have more recently contributed to the understanding of the region. Dr. Francisco Corrales Ulloa is a Costa Rican researcher who has done extensive analysis of the material record of the region. During his PhD studies, he mainly focused on the diverse material records that were already in collections. Like Linares, he was

trained in the US. He received his PhD from the University of Kansas in 2000 under the direction of Dr. John Hoopes. His work centered on analyzing the extensive diversity in the ceramic record to understand whether regional groups “evolved without major outside intrusions throughout the pre-Columbian occupation sequence” (Corrales 2000:ii). Like more contemporary researchers who are utilizing different frames of reference in their studies, Corrales used different scales to analyze ceramics at the local level, regional level, and interaction spheres of reference. Interaction spheres were described as a concept involving “cooperation without domination” (Lange 1992) that has been used to counteract diffusionist models (Corrales 2000:86). The concept is used by other Costa Rican researchers, as evidenced by Quilter’s (2004:195) references to the Coto and Turucaca spheres in his research. Like Linares, the overall theme in his work seems to try to counter the notion that the overwhelming reason for change in the region was external as opposed to internal dynamic influences. Corrales argued that it was not new populations coming in to Diquis (a sub region bordering Chiriqui in Panama) that were the reason for the change in ceramic traditions. To me, Corrales, Linares, and Cooke’s work seems thematic in the attempt to promote the idea of the region as an “independent” area that was able to develop on its own, and not a “backwater” that only developed because of outside influence.

Through my research in the country I have been able to establish correspondence with other contemporary anthropologists who have also helped me to understand the Panamanian perspective regarding the concept of “chiefdoms”. The additional perspectives were important in trying understanding the trends in the way the “chiefdom” term was used in relation to training, background, and national identity. This was important, given that most of the researchers that have done work in the country have been from different countries.

Dr. Luz Graciela teaches at Universidad Autónoma de Chiriquí (UNACHI) which is located in David, Panama. David is the largest town in the western part of the country and is approximately 55 km away from Boca Chica, which is the closest coastal village that provides boat access to Isla Palenque. Her descriptions of indigenous leaders in contemporary communities give insight to some of the possible characteristics of native leaders from the past. She has done some archaeological work in the region and incorporates many of the ethnohistorical characteristics observed from contemporary native communities in her concept of chiefdoms. She describes the concept as a position, “usually occupied by a man who controls an area economically or politically” (Graciela 2015, personal communication). The general term given to this person is the Spanish name *cacique*, but other terms are used in different *comarcas* (name for the contemporary reservations in Panama), such as *salia*, *suguias* and *guna* to describe leaders of those communities. The characteristics described of these leaders are varied, but her definition incorporates the notion that “not all systems of chiefdoms were based on possessing material objects, like Mary Helms postulated” (Graciela 2015, personal communication). Some of the valued characteristics included a charismatic personality and the ability to communicate to help resolve community problems peacefully. This is also reflected in their described encounters for political control that would “not be with arms but mental encounters like who could resist defecating for several days, cause it to rain inside houses, cause fish in rivers to turn several colors, or resist diarrhea after eating these fish” (Graciela 2015, personal communication). Dr. Graciela also described some traditions from other groups where certain signs at birth and during childhood were observed to see if that boy would be a future leader. Some of these signs included being born with the amniotic sack over the face (a sign that he would be a diviner or see the future), or a rejection of breast milk. Dr. Graciela’s strong ethnographic focus on pre-history

is understandable as she is a cultural anthropologist, and while these attributes are extremely difficult to discern in the archaeological record, they cannot be discounted in the interpretation.

Dr. Tomas Mendizabal is another important archaeologist that helped me understand the Panamanian perspective on the “chiefdom” concept. Dr. Mendizabal currently focuses on Cultural Resource Management (CRM) projects in Panama. He relates that, aside from what has been theorized from North America, there is little that has been written in the country relating to the concept of the term (Mendizabal 2015, personal communication). He relates that theoretical practice is not utilized extensively in the country and within his focus of CRM specifically. But, when he does apply the concepts, he uses Spanish chronicles that are, in his opinion, the best approximation of what the chiefdom concept meant, at least in the 16th century. He describes these “jerarquizadas” (a different name applied to these organizations), as non-egalitarian, professionally specialized societies where a small number of elites exercise political, territorial, and military control. He also describes chiefdoms as maintaining control over the distribution of resources and the cosmological and religious worlds. Aside from this, he dislikes to further generalize or “invent” given the uncertainties of the past.

2.5 Contemporary Researchers: their changing approaches

While the debates introduced by previous researchers continue, the changing questions that are being asked represent the evolving theoretical and methodological paradigms that are being incorporated in Panama and neighboring Costa Rica. For example, Earle (1987) considered the different scales of analysis of major importance in understanding chiefdoms. He stated that “the household, community, chiefly polity, and the inter-polity region were the most common

scales that were in competition for political control” (Earle 1987: 45). Contemporary researchers in Panama (Palumbo 2009; Locascio 2010; Menzies 2012) have started to analyze these different scales to address questions related to the emergence and development of social hierarchies. Their multi-scalar approach recognizes that there is a different focus of spatial analyses that can be utilized for different questions. For example, while Locascio (2010) studies inequality of a site based on the household scale, Palumbo looks to address the chiefdom concepts based on “the spatial distribution of production debris between different households at the village scale” (Palumbo 2009:62). Their focus demonstrates an evolving methodology that depends on a finer grain of analyses than what former researchers utilized in the region before. No longer just focusing primarily on mortuary artifacts, these contemporary researchers have turned their attention to craft production and distribution activities at the household/domestic level to assess questions of social status difference (Palumbo 2009: 18). In trying to assess differential consumption or the possibility of controlled domestic production, Palumbo (2009) analyzed inter-spatial differences in:

- (1) Proportions of tools (i.e. stone axes, spindle whorls, grinding stones)
- (2) Presence of high quality objects (i.e. fine decorated ceramics)
- (3) Presence of items made from non-local materials
- (4) Diversity of artifact assemblages
- (5) Proportions of jewelry and ornamentation (i.e. beads, earrings, necklaces)
- (6) Presence of rare imported goods (i.e. shell, jade, gold)
- (7) Proportions of serving vessels (i.e. plates, dishes, chicha jars)
- (8) Proportions of elaborate metates in association with celts and statues

In the Central valley of Costa Rica, researchers have incorporated the notion of duality to assess the socio-political difference that they suggest is representative of the region. Roger Frost is one of these contemporary researchers who has studied these relations in the Greater Chiriquí

area. He focuses on assessing the notion through investigations of settlement patterns at Rivas and El Pateon de la Reina, both central Costa Rican sites (Frost 2009). Although Frost's research was primarily investigated through the spatially limited scale of cemetery excavations assessing architectural patterns, his review of historical records associated with Palenques, supporting the concept of duality in the region, were revealing of the nature of settlements during the Contact period. He describes many historical examples of palenques in relation to surrounding pueblos (towns) or other nearby palenques. Based on early historical accounts during the mid-16th century, Frost lists six examples of dually organized palenque settlements stretching from Costa Rica's central valley all the way to the contemporary Panamanian border. Frost suggests that the described differences related to size, elevation, and fortification, reflected an asymmetry that indicated possible socio-political segregation (Frost 2009). I discuss these further below.

Discussion

In reviewing the theoretical debate regarding the "chiefdom" question, I have determined that it is beneficial to go beyond the falsely dichotomized arguments that were debated between Neoevolutionists and Post Processualists. Drawing aspects from both approaches allows one to highlight and understand important differences and similarities. While characterization of social structures is important for comparison, it cannot be considered static in terms of space or time. The scales of focus are hugely important as well because while the ecological factors in some regions may have contributed to a continued stratification, other ecological factors may have hindered nucleation and resultant stratification. This highlights the fact that I believe characterization of social structures has to be considered independently for specific locations.

For my work, I am assessing Isla Palenque's settlement distribution to assess the notion of stratification which may or may not have been associated with a "chief."

I believe this is critical because I do not want to put the pre-historic people of Isla Palenque's varied occupations in a "box" based on a paradigm that despite its refinement has a way of assigning static and permanent meanings that cannot be divorced from past definitions. This is important in Panama where these classifications have in effect defined native prehistoric people for over 400 years. There is more to the people of the past than the caricature of constant warfare and I do not believe in encapsulating the entirety of pre-history in the extremes of past societies. I believe this is where using different terms helps in shedding these strong and ultimately negative images of the people, but I am also aware that whatever terms we use today will attach our own biases towards the future.

3 CULTURE HISTORY

The following section will detail some of the issues that have impacted the temporal and spatial understanding of the region. The highly complex and still debated chronologies will then be discussed. The section will end with a description of the cultural phases that are specific to the Gulf Coast region and specifically the area of this study.

3.1 Spatial and Temporal aspects of culture area

It is critical to know how Isla Palenque fits within its broader regional, social, political, and economic networks. The broader factors must be addressed before finer scale analyses can be fully understood. This is highly important in an area such as Lower Central America (loosely defined as stretching from Honduras through western Columbia and Ecuador) where the research is not as robust as it is in neighboring regions (i.e., Mesoamerica and the Andes).

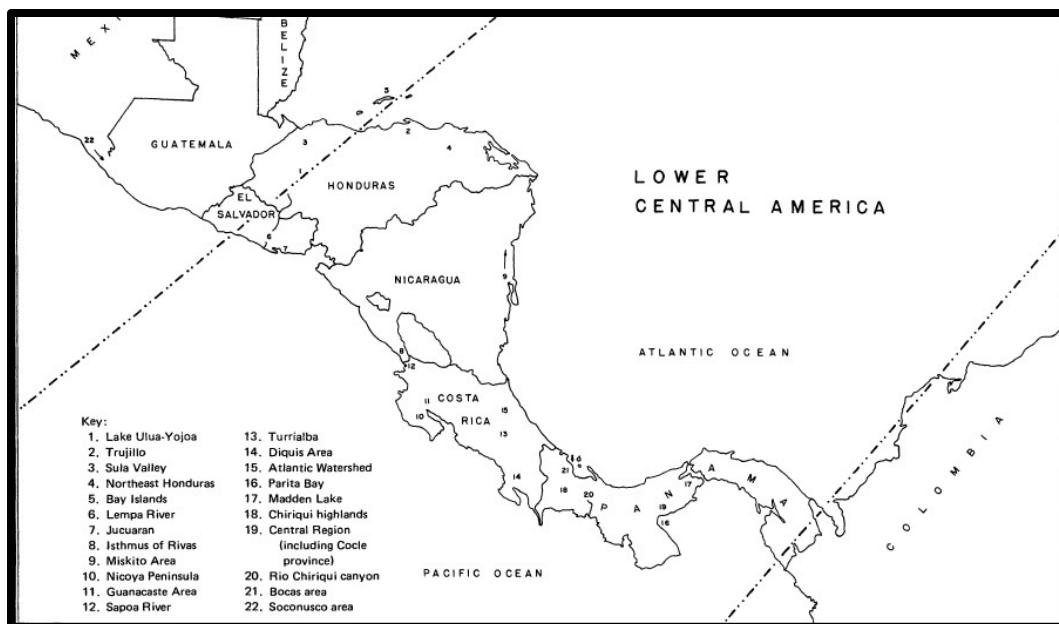


Figure 3.1 Linares' view of LCA archaeological region (after Linares 1979: Fig 1)

The literature of the region is full of expressions reflecting the continuing difficulty in trying to analyze the culture history for a region that is characterized by extreme variability. The inability to establish a consensus has contributed to the myriad of naming conventions that have been used to designate both culture areas as well as cultural sequences. These different labels demonstrate the changing dynamics associated with the research questions regarding the region. Some of these designations include: the Intermediate area, Lower Central America, southern Central America, Northwestern South America, Area of Chibchoid, Chibchoid Historical Region, and Isthmo-Colombian (Fonseca 1994, Hoopes 2005, Lange 1992). While the aim of these designations was to present the region as more independent and not solely defined by “the basis of intermediateness—its position between Mesoamerica and the central Andes”, no consensus has yet been attained (Hoopes 2005: 5). This is reflective of a significant fact of the region: “great geographical and cultural variability within a very limited land surface area is the primary characteristic of lower Central America” (Lange and Stone 1984:5). Narrowing the

focus, the variability can be exemplified by the many culture areas that are represented by researchers in just Costa Rica and Panama alone. These include Greater Nicoya, Central Highlands, Atlantic Watershed, Diquis, Chiriquí, Veraguas, Conte and Coclé (Quilter 2004: 9). These culture area designations are not static by any means and continue to be contested by current researchers (Corrales 2000, Cooke 2005, Quilter 2004, e.g.).

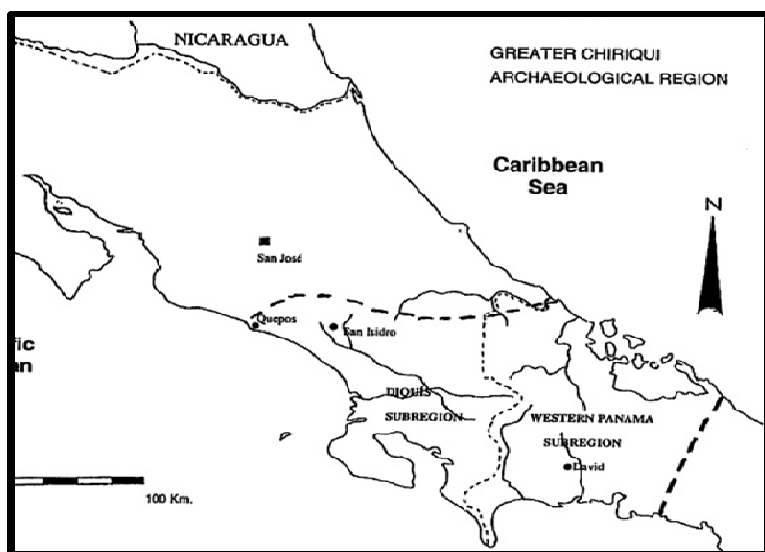


Figure 3.2 Culture area (after Corrales 2000: Fig. #3)

The variability is a fact of the region, but other key factors continue to constrain and hinder the goal of a synthesized chronological scheme. One major factor is the lack of study in the region. Another major factor is current political divisions. In studies that are highly constrained by finite resources, these divisions can prove to be overwhelming. Such is the case with the border between Panama and Costa Rica where the current political division has made it difficult to study a region that has been considered a unified culture area for part of its past (Palumbo 2009). This culture area encompasses the western pacific portion of Panamá (Chiriquí province) and the southern pacific side of Costa Rica (Diquis subculture area). Together these

sub regions define a larger archaeological culture called "Greater Chiriquí" (Frost 2009:15). The boundaries of this region are still a "loose representation" that continues to be debated. For example, current research being done in Panama continues to assess if Pacific and Atlantic watersheds were a cultural unit despite the varied ecology (Wake, et al., 2004). Another example from Costa Rica is Corrales' (2010) proposed refinement of the Diquis sub region based on his analysis of ceramic cultural similarities from western Panama.

Variation in temporal frameworks is another reality of the region. The variability reflected in numerous chronological frameworks is significant. For example, while Linares' 1963 classification adheres to six phases, the literature reflects many others who utilize their own different chronologies (Lange 1984: 7). In trying to understand the Greater Chiriqui culture as a whole, I considered both Linares' (1968) and Frost's (2009) sequences. I used them because my question was focusing on Frost's concept of duality in an area that was studied by Linares. I combined the timeframes of both to consider western Panama and southeastern Pacific Costa Rica. These periods are summarized below.

3.2 Paleo-Indian Period (11,000-8000 BC)

Early studies concerning this period focused on understanding the time depth of habitation for the region. Salient questions included the possibility of long term habitation of hunter gatherers vs. the intermittent use of this region to solely chase down game (Linares 1963). While the regions ecology plays a major factor limiting the record of this period, researchers discovered some artifacts that demonstrated "indisputable evidence for human occupation in southern Central America dating between 11,000 to 8000 B.C." (Frost 2009:18). Lithic evidence

relating to this period was found in both Costa Rica and in portions of Panama (Ranere 1980, Snarkis 1978). According to Cooke (2005), the evidence was important in demonstrating the timeframe of early habitation in Panama. Additionally, “[a]rchaeological data from this [period] ... shows that people remained continuously in some areas of Panama after the Paleo-Indian period (Holmberg 2009:7). Researchers have proposed that “small and highly mobile bands, supposed big game hunters from the plains of North America, encountered and adapted to a mosaic of different environments in Southern Central America (Palumbo 2009, Piperno and Pearsall 1998). Cooke also highlighted how “pre-Columbian residents altered vegetation immediately after first arrival, and began to add domesticated crops to their subsistence inventory between 9000 and 7000 BP” (Cooke 2005:129). This is considered a characteristic of the region.

3.3 Tropical Archaic Period (8000-1500 BC)

This period is characterized by several factors including changing ecology brought on by the Holocene (Palumbo 2009), new subsistence patterns, and the introduction of new technologies and beliefs that would impact later stratification. In the beginning of the phase, changing ecosystems affected changes in former diets. While the changing ecology restricted former sources of game, it also enabled a different broader subsistence to emerge. According to Palumbo, “[t]his time frame in the highlands is thought to be characterized by small groups making a living by hunting, gathering, and horticulture, all well-adapted to the tropical forest environment” (Palumbo 2009:67). Subsistence evidence reflects that both external influence and independent cultivation were associated with the region. Cooke (2005:19) notes how “maize and

manioc, domesticated outside the land bridge, were introduced during the pre-ceramic period between 7000 and 4500 BC”. On the other hand, Piperno’s (2011) study in the Chiriquí rock shelter of Hornito shows evidence for independent cultivation. Root crops such as leren and arrowroot were being incorporated into “horticulture” subsistence practices (Piperno 2011). Piperno’s work with pollen, phytolith and charcoal core sediments suggest beginning agricultural intensification through forest clearance related to slash-and-burn cultivation in central Panama during this period around 7600–7200 BP (Piperno et al. 2007).

The relation of lithics to the developing agriculture in the region also plays an important role in trying to “tease out” the culture history during this phase. Limited archaeological evidence of this association is mainly found in Panama (Lange 1992). Anthony Ranere investigated rock shelters in the Chiriquí province that dated back to 5000 BC (Ranere 1980). Ranere designated two sub phases (Talamanca [5000-2300 BC] and the Boquete [2300-1500 BC]) within the Tropical Archaic that corresponded to changing subsistence patterns evidenced by the lithic record. He attributed the presence of celts, flake, and non-flake tools to hunter gatherer populations that utilized them to produce wooden implements for their activities (Ranere 1980). He marks a transition to his Boquete phase by the introduction of several new tool types, such as ground and polished tools and mashers (Ranere 1980). Both Ranere and Linares suggested these new tool types marked a transition to root crop cultivation, supplemented by palm plant utilization (Linares 1980; Ranere 1980).

Another aspect of the lithic assemblages discovered in the region demonstrates the relation of early religious ideology and its corresponding material record. A group of unusual stones were unearthed in a rock shelter in the highlands of western Panama dating to approximately 4800 and 4000 BP (Dickau et al. 2012). According to Dickau and colleagues

(2012:1), the unusual lithic types, the context of the cache, and the ethnographic evidence, suggested that the “stones once belonged to a ritual specialist, such as a healer or shaman”. The cache of stones recovered at the rock shelter may represent the earliest material evidence in Central America of shamanistic practices (Dickau et al. 2012).

Towards the end of this period, human populations were increasing and the diversity in material culture was expanding. Richard Cooke’s work in central Panama gives archaeological evidence of these changes during the end of the period “that involved the interplay of population growth, settlement nucleation, technological innovation, the increase of risk, and ultimately the ascendancy of ascribed social status” (Cooke 2005:129). The evidence suggested that large regional centers with increased populations now inhabited the coastal plains; that cultivation systems were now heavily maize dependent; and that the introduction of pottery around 4500 BP marked a shift when different styles would become discernable over time (Cooke and Ranere 1992).

3.4 Formative Period (Frost 1500 BC- AD 750)

Throughout the culture area, the Formative period represented a shift towards sedentary farming villages and developing social stratification (Frost 2009). Once maize became the staple crop in the region, it largely replaced horticultural practices (Linares 1980). This led to “complex processes that affected diversification of the region over time” (Linares 1980:13). The diversification can be analyzed by the varying artifact technologies that were developing differentially both spatially and temporally. The archaeological data represented by different ceramic assemblages from Costa Rica to central Panama reflect these increasing cultural

differences. According to Cooke (2005:129), the varied and distinct chronologies in this phase begin to represent “hierarchies among regions, sites, social groups, and individuals that point to the establishment of chiefdoms.” The Formative period marks the beginning of the ceramic record representing the Chiriquí region where Isla Palenque is located. The following sections will cover the La Concepcion, Aguas Buenas, San Lorenzo and Chiriquí ceramic phases previously identified on Isla Palenque and/or neighboring areas.

3.4.1 La Concepción Phase (300 BC–AD 400)

La Concepcion ceramics share the decoration pattern of zoned bichroming (red slipped areas alternating with unslipped zones) that was a general characteristic of ceramics from western Panama all the way to Nicaragua (Corrales 2000: 45). A distinction of this phase is the additional scarified decoration (Corrales 2000: 45). This phase is found more generally in the foothills of western Panama, and in Costa Rica (Shelton 1984). Although this phase has not been identified at Isla Palenque, the proximity to where it has been found makes this an important phase to consider. In terms of settlement, this period represents the initial emergence of small, scattered sedentary farming villages in the Gran Chiriquí (Palumbo 2009). Indications of increased stratification have also been discovered as evidenced by a small number of metate-lined tombs at sites such as Concepción (Haberland 1976). This is notable in an area that had not yet been associated with highly stratified cemeteries (Hoopes 2005). Two different ceramic chronologies were proposed for the same period by Haberland (1976), who classified by types, and Shelton, who classified by wares (Corrales 2000). This discordance was in itself, an attempt

by researchers to try to refine descriptions and classifications (i.e., Holmes 1888, McCurdy 1911, Osgood 1935) that were constructed by previous researchers.

3.4.2 *Aguas Buenas/Formative (AD 300- 900)*

This phase is characterized by increasing demographic expansion, rapid technological change, and the emergence of inequality in the region. Research by Palumbo (2009) in the upland areas has indicated rapid demographic expansion by agricultural groups. Although Linares attributes demographic expansion to population pressures, some researchers question whether this was the case (e.g., Palumbo 2009). Despite the debated causal factors for the expansion, examples of the variance and stratification in the material record provide the first evidence for social ranking in western Panama during this period (Palumbo 2009). Hoopes (2005:17-25) details several lines of evidence for the period that highlight the emergence of social differentiation and inequality.

- (1) While there are no clearly identifiable elite residences or cemeteries before this period, these patterns are now widespread.
- (2) The spread of metal technology into Central America is now seen with the first jewelry fashioned from gold and gold-copper alloys.
- (3) The expression of complex anthropomorphized animal iconography suggests religious notions of shape-shifting or animal spirit companions associated with the development of a priestly elite tradition across southern Central America.
- (4) The spread of this tradition has also been suggested to be linked with a common Chibchan language (Cooke 2005). The Barriles site, located in the

upland Chiriquí region, has been proposed as an elite center relate to this tradition (Hoopes 2005).

As a general description of the varied and debated ceramic sequences of this period in the region, Corrales describes them as having a “zoned bichrome decoration sharing most of the same diagnostic modes” (Corrales 2000:50). Focusing on western Panama, this period marks different ceramic phases for the highlands as well as Gulf coast. In the highlands, two Bugaba phases followed a Barriles phase that was associated with the area where its namesake is located (Linares 1968). In the Gulf coast, the Burica Phase marks the first evidence for the occupational history of Isla Palenque at around AD 400-600 (Linares 1968a). Linares designated the Burica phase by diagnostic pottery which included Isla Palenque Maroon Slipped and Plain Ware C (Linares 1968). The pottery was generally characterized by slip and incisions (Linares 1968). These pottery artifacts were found in the lowest levels of the Isla Palenque site and included large urns, large jars, and bowls of many varying sizes. Her plain ware classification was only differentiated by the lack of slip (Linares 1968).

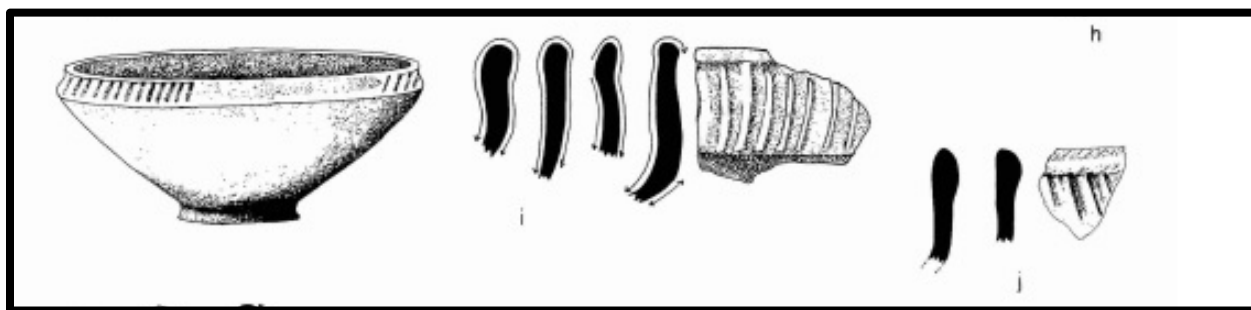


Figure 3.3 Burica (thin variety) phase pottery example (after Linares 1968: Fig #12)

The association of this ceramic type with the Burica peninsula, on the western edge of Panama, has led to suggestions that it was the initial source of migration to the island (Linares 1980). Ranere noted that this pottery type was “predominant and often exclusive in most of the surface collections from hilltop sites along the shoreline of the Burica peninsula to the west of Isla Palenque (Linares 1980:107-119). This is significant as the distance from Burica peninsula to the Gulf islands is approximately 55km by sea (Linares 1963). In contrast, the ceramic record from contemporary Bugaba sequence of the north does not indicate evidence of migration to Isla Palenque. Linares noted that “while people may have moved from the highlands to coastal plains during this phase, there was no evidence for assuming the same deliberate migration of people all the way to Isla Palenque ” (Linares 1980:116). Another important characteristic of the material record is the lack of lithics associated with this phase on the island. Linares’ (1963) early studies attributed this to possible sampling methodologies, but her later work (1980) reconfirmed that the Burica phase on the island was devoid of stone implements.

The San Lorenzo ceramic phase (AD 700-900) marks an increase in the material record on the island. The phase is present on the Pacific coast, but not the Chiriquí highlands (Palumbo 2015, personal communication). On Isla Palenque, the stratigraphic layers of IS-3 (site designation on the island) reflect a possible abandonment between this phase and the previous one (Linares 1980). The bi-chrome ceramics associated with this phase are characterized by types painted with red bands, reds lines, or red slips (Corrales 2000). Some of the names of these ceramics include: Arayo Polished Line, Banco Red Line, Caco Red Slipped, Cangrejal Red Line, Castrellon Red Slipped, Centeno Red Banded, Horconcitos Red Banded, Pan de Azucar Red Line, and Zapote Red Banded (Linares 1968a). There is no current consensus as to origin of the people associated with this tradition. Previous researchers (Haberland 1976, Linares 1968)

attribute this phase to a migration from central Panama's Veraguas region, but more contemporary researchers propose that the San Lorenzo sequence was strictly a Gulf region development (Corrales 2000:203). The San Lorenzo ceramic phase emphasized linear decoration by painting, instead of the slip and incision used in the Burica phase (Linares 1968:91).

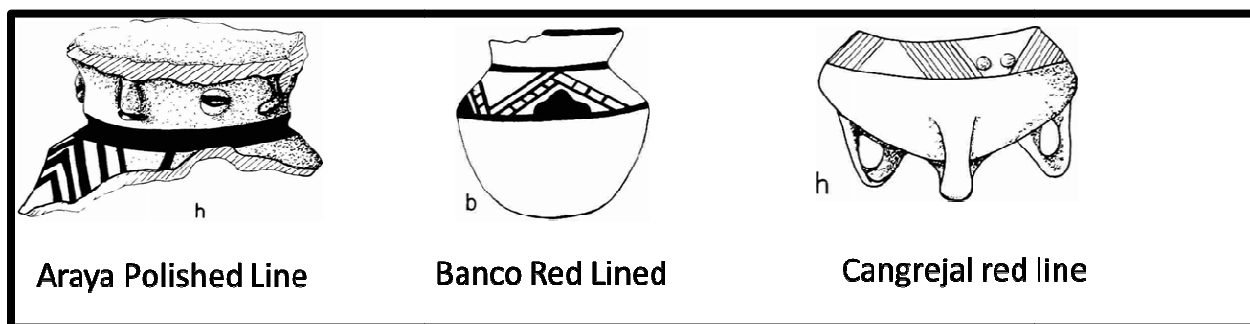


Figure 3.4 San Lorenzo Phase Pottery examples (after Linares 1968: Figs. 15-24)

While origins of the population are in question, some estimates do give an indication as to the size of the community during this phase on Isla Palenque: “The density of sherds compared to other phases does suggest Isla Palenque was most intensively occupied during this period, probably around several hundred people” (Linares 1980:76). The ceramic record also indicates possible trading and cultural connections to central Panama. The question of trade is a difficult to assess given that a limited amount of trade sherds were recovered on the island (Linares 1980). Despite this, researchers have speculated that, given its maritime location, it seems intuitive to think of the island as a possible “port of anchor, or a trading post of some sort” (Linares 1980:116). The evidence of lithics in this phase, while marking a change from the previous occupation, were not definitively sourced. Linares’ indicated that lithic tools requiring skilled workmanship were probably imported (Linares 1980:11). Aside from the question of

trade, the lithics, while possibly indicating a lack of specialization on the island during this period, were clearly associated with varied and changing subsistence practices. Stone tools such as manos, metates, and net or line weights were all found toward the end of the phase and into the next (Linares 1968).

3.4.3 Chiriquí Phase (AD 1000 – 1500)

The Chiriquí period can be characterized by a “strong cultural interaction sphere that linked western Panamá and the Diquís region of Costa Rica” (Holmberg 2009:11). Significant changes in site organization, social organization, material culture, and mortuary practices were exemplified in many of the sites within these areas during the period (Drolet 1992). It is important to understand that many of these changes were differential and indicative of much complexity across the region. For example, the sites in the Chiriquí Gulf region did not reflect the same magnitude of stratification as seen in some famous “elite” highland sites. For example, while the highland sites of Barriles is famous for its large articulated sculptures and giant ceremonial metates, Gulf sites have not demonstrated this level of stratification reflected in the material record (Linares 1980). Isla Palenque, in comparison, is characterized more so by the “high numbers of ceramics, stone utilitarian tools, and undecorated basalt columns, than by trade pottery or fancy items” (Linares 1980: 312). To date, there is no record of gold found in association with burials on Isla Palenque (Linares 1980). This stands in stark contrast to all the historic records that indicate gold associated with highland burials. Additionally, many sites in central Panama, such as Coclé and Nata also demonstrate significant gold artifacts that have been

interpreted to represent stratification reflected through mortuary remains (Cooke 2005, Mayo 2013).

Despite the differences of Isla Palenque to other well-known sites during this period, there are some similarities. For example, settlement descriptions (Frost 2009) of some large sites in southern Costa Rica are very similar to Linares' description of the island as a large nucleated agricultural village that included a residential zone and cemetery area. Although Linares does not specify what phase they were associated with, intrusive burials were found in mounds close to what Linares designated as habitation activity areas (Linares 1980). Child burials as well as extended adult burials were discovered associated with large vessels and urns. Linares also indicated that carved columns were found close to this area on Isla Palenque. Regionally, elaborate columns have been described as associated with burials where anthropomorphic and zoomorphic statues have been found (Mayo 2013, Lothrop 1963, e.g.). Corrales (2000) described the association of mounds, columns, and burials as a hierarchical complex representative of this period in the region.

Additional regional similarities in subsistence marked this phase. Linares' evidence of an increased "presence of manos and metates suggested that a maize diet was becoming increasingly important there" as it was across the region (Linares et al., 1980). She also described the agricultural production as part of a mixed subsistence that was practiced in house gardens, palm plantations, and in nearby Boca Brava (Linares 1980).

During this period, the ceramic record for the region is marked by a big change "with the appearance of polychrome pottery, and the increased variance of vessel forms and decorative motifs" (Corrales 2000:62). While the polychrome pottery was not representative of the Isla Palenque tradition, three new pottery types marked the phase on the island: Tarrago Bisquit

Ware, Villalba Red Streaked, and La Cavada and red banded opened bowls (Linares 1968). Bisquit ware is described as one of the most distinctive types in the entire Greater Chiriquí region (Corrales 2000). Thin walls, “biscuit-like” paste and graceful forms characterize the ware. Linares (1968) proposed that it was manufactured somewhere near current day David, and associated with mainly funerary deposits (Linares 1968). Some examples of the Chiriquí types are pictured below.

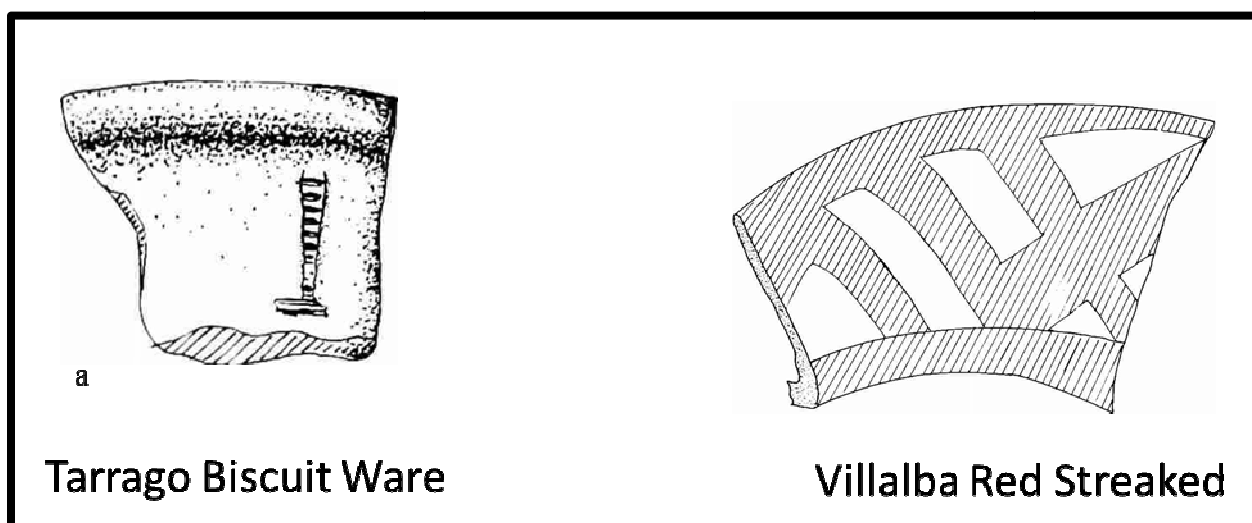


Figure 3.5 Chiriquí Phase Pottery example (after Linares 1968: Figs. 25-27)

3.5 Contact (AD 1503)

The entire LCA region was heavily impacted by Spanish contact. This is an important fact in trying to analyze a prehistoric cultural context from a historical and methodological focus. With the arrival of Columbus 4th voyage, in 1503, extended processes began to impact the entire western hemisphere. Subsequent colonization on Panama’s eastern Darien region in 1510, eventually led to incremental Spanish explorations of the western part of the country. This

undoubtedly started a critical chain reaction that affected social relations, settlement, and subsistence patterns.

Linares' translation of primary ethnohistorical records gives insight into the impact on Panama's Pacific Gulf coast and beyond. Her description of the events relating to Spanish "entradas" (expeditions from their base in central Panama to the western part of the country and beyond to Costa Rica) in the early 16th century shed light on some social and settlement aspects of the Gulf region. While Isla Palenque cannot be positively identified in her translations as a major cultural "center", there were indications of a broader culture with some leadership centered on some of the islands:

The people of this province and those of Burica were almost exactly the same in the fashion of their clothes, and in their customs. The country is fertile, with plentiful supplies of fish, and a great quantity of swine.....There were three or four chiefs in this province, and their villages were well fortified with palisades made of very strong thorny plants, intertwined and forming a thick wall [Andagoya 1865: 24-25]

The indication given by historical records that there were palisaded structures in the region, combined with the possible connection to the island's name, present intriguing questions that make the broader community study on Isla Palenque of interest. This could help in the understanding of the nature or possible function of the island, given that the initial interpretations labeled it as an "economic center" where trade and socio-ceremonial activity were the major reason for its occupations (Linares 1980).

In summary, the culture history of Isla Palenque in comparison to other regions, suggests a later phase for settlement on the island. Culture regions to the east and the west both had ceramic phases indicating earlier habitation. The highlands north of the Gulf coast region also

reflected an earlier occupation before Isla Palenque's initial settlement at approximately AD300/400. The origins of Isla Palenque's varied population are proposed to have been from western areas during the Burica, to possibly eastern in the later phases. Lithics that were only found in the later phases could possibly indicate a changing subsistence, or a changing function of the island's use itself. All of this is extremely difficult to ascertain as it is still being debated in a context of knowledge that is limited, fragmented, and constrained by theoretical bias. While this may result in an overall lack of synthesis for an entire region, I don't believe this is required to understand better understand Isla Palenque's settlement. As a matter of fact, I think this lack of synthesis defines it. The change and complexity highlight the fact that Isla Palenque's settlement history may in all actuality go beyond Carneiro's (1981:45) static definition of "an autonomous political unit comprised of a number of villages or communities under the permanent control of a chief." I believe there is more to the people of Isla Palenque than this.

4 ARCHAEOLOGICAL HISTORY OF ISLA PALENQUE

The amount of archaeological work done in Panama has been varied. While more attention has been paid to the central region of the country, the work done in the Chiriquí region has been limited by comparison. Yet even in Chiriquí, more focus has been given to sites in the higher elevations zones, most of which have been associated with more “valuable” artifacts (i.e., gold objects, large sculptures) or the landscape (volcanos). Historical accounts from the 19th century show how the early focus was on the upland regions where large graveyards in the cordillera and Bugavita were first described (Lothrop 1919). The interest related to the initial discoveries there, resulted in subsequent and protracted decontextualization of the region by both “Panamanians and foreigners alike that practiced the lucrative sport of the huaqueria (grave robbing)” (Linares 1963:11). Academic research in upland Chiriquí began in earnest during the late 19th century and continued sporadically through the 20th century (e.g., Haberland 1958, Holmes 1888, Linares 1980, Mccurdy 1911, and Osgood 1935).

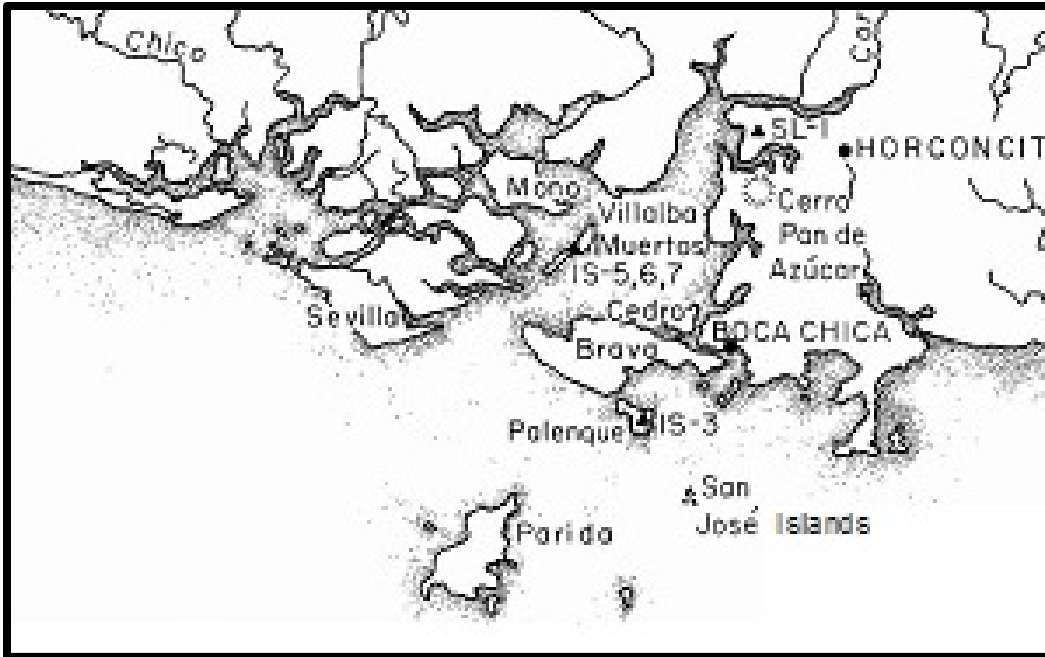


Figure 4.1 Gulf region and its archaeological sites (after Linares 1968: Fig #2)

The Gulf sites in Chiriquí have received limited study in comparison to the neighboring areas. It was not until 1961 that a study was focused on the Gulf region of Chiriquí. Dr. Charles McGimsey and several graduate students which included Olga Linares (Linares 1968a), conducted a coastal survey which included all the islands. Linares' dissertation (Linares 1963), focusing on the Gulf, attempted to:

- (1) Establish a general chronology through examination of four different coastal sites:
 - a. Isla Villalba (IS-7)
 - b. San Lorenzo (SL-1)
 - c. Las Secas (IS-11)
 - d. Isla Palenque (IS-3)
- (2) Trace cultural contacts
- (3) Reconstruct living patterns; and

(4) Indicate stylistic similarities with other regions outside the Gulf

Her methods during this phase were to “combine small scale excavations with surface collections” in areas associated with mounds (Linares 1963:38). During the portion of her investigation at Isla Palenque (IS-3) specifically, Linares excavated four (2 m x 1 m) units on and near discernable mounds during a three-day visit (Linares 1963). Her excavations utilized 10 cm arbitrary levels to assess the relative temporal differences of the recovered artifacts. Through the analysis of recovered pottery, she developed a ceramic typology that was based on “distinguishing surface treatments/decorations” (Linares 1963:43).

She then performed an inter-site comparison that was based on the analysis of the presence or absence of pottery types and trade wares to determine a time sequences for the Gulf sites (Linare 1963). Her studies, detailed through frequency seriation and documented on “battleship curves”, resulted in the development of a “three-fold stratified sequence” on IS-3 (Linares 1963). She used her data from IS-3 to compare to the other Gulf sites. The other sites all reflected shorter stratified sequences in comparison to IS-3 (Linares 1963). Linares also performed a more in-depth study of ceramics through a “modal analysis” that detailed minute variations in shapes of handles, rim and body sherds (Linares 1968a). She attributed the need for this additional analysis to the fact that Chiriquí pottery is extremely varied and primarily based on “plastic” variations in shape and decoration types (Linares 1963:49). Her initial research highlighted an important fact on the island. She described the presence of holes on the side of a mound that indicated the high possibility that IS-3 has been looted by past grave robbers (Linares 1968).

Linares conducted her next major study on the island in 1971(Linares 1980). Now working at the STRI, Dr. Linares directed a broad regional study that included sites in different ecological zones aiming to compare human adaptations in western Panama (Linares 1980). In adhering to the focus of STRI research, the heavy ecologically based research included a second study on Isla Palenque that was used to correlate data to sites in the higher elevation mountain regions as well as Atlantic Gulf sites (Linares 1980).

Linares' basic methods during this study utilized surface collections and limited block excavations. She did this to refine the site's spatial definition and to excavate different functional areas to understand di-chronic relations to other areas (Linares 1980). To expand the limited data from her first investigation on the island, she implemented additional methods to understand broader settlement and subsistence data. The additional approaches included "contour mapping of the site, recovery of organic remains, and analysis of stone tools" (Linares 1980: 306). Of the two months spent on the island, the researchers spent the initial three weeks on clearance operations that involved cutting underbrush/trees and raking large areas in the center of the island. The clearance uncovered the "small" (1 m tall) extended mound (50 m x10 m) that was composed of cultural debris and "piled" rocks, a continuous cap of surface artifacts, and carved basalt columns (Linares 1980:307). Within the refined site area measuring 260 m x 330 m, Linares identified six distinct "activity" areas in close relation to the mounds where she focused her excavations (Linares 1980:75).

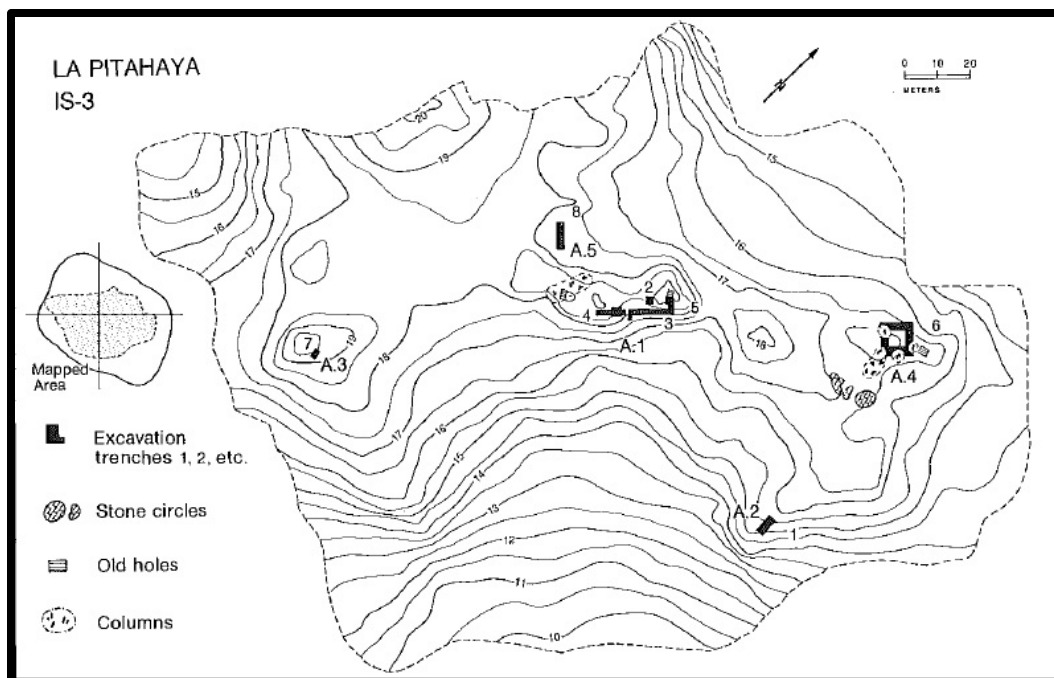


Figure 4.2 Linares' defined site area (footnote 1)

¹

She implemented different sized block excavations to investigate the different activity areas. All her excavations used 10 cm arbitrary levels and materials were screened through ¼” mesh. Profile drawings detailing stratigraphy, soil composition and deposition strata were recorded. According to Linares, the excavations resulted in “overwhelming” amounts of cultural materials (Linares 1980:308). The cultural remains included broken artifacts and organic remains. Additionally, she identified different features within the excavations that she utilized to interpret the site as a complex socio-ceremonial and “ritual” settlement (Linares 1980). Near the mound, she excavated a 2 m x 15 m trench (160 cm deep) where intrusive child and adult burials were discovered at the lowest levels (Linares 1980:307). At the other activity areas she used smaller trenches of varying sizes. In one of the activity areas, in close association with the basalt

¹ Figure 4.2 From Olga F. Linares and Anthony J. Ranere, eds., *Adaptive Radiations in Prehistoric Panama*. Peabody Museum Monographs, no. 5. Copyright 1980 by the President and Fellows of Harvard College.

columns, she identified an area of “hard packed soil that she tentatively identified as a possible plaza floor” (Linares 1980:308). In another excavation, she attributed the lack of angular rocks combined with some cultural remains, to “swept-up areas [that were] indicative of the logical dwelling areas or orchards” (Linares 1980:308). Linares did not find any postholes in any of her activity area (Linares 1980).

With STRI backing, and reflective of her New Archaeology approach, Linares implemented more technologically based approaches to analyze her surface collections and unit excavations. Her ceramic analysis now implemented statistical methods and computer typology programs to complement and validate previous hand sorting to determine stylistic and modal typologies. The studies helped in reconfirming her earlier relative sequences, but the unavailability of charcoal restrained her ability to acquire absolute dating to anchor stylistic sequences. To date her sequences, Linares utilized C-14 dates from other sites to compare to the relative dating sequences obtained on IS-3. This enabled Linares to determine the sites oldest occupation to be between AD400 and 600 (Linares 1980:108).

In analyzing subsistence, Linares used several methods to interpret terrestrial, aquatic and plant sources on the island. She relied heavily on sampling methods, primarily through minimum number of individuals (MNI) techniques, to determine faunal percentage frequencies represented in her excavation (Linares and White 1980). Although the data reflected a wide variety of sources, it also reflected major spikes in white tail deer and marine catfish (50% of MNI). Linares used this to base her interpretations that these were preferred faunal protein sources for the inhabitants (Linares 1980). The predominant belief by researchers like Linares and Cooke is that the whitetail deer found in Isla Palenque likely came from Isla Brava (or the mainland), which is the only island large enough to sustain deer populations. Due to the regional focus of

her studies, she only detailed faunal and aquatic resources on a total contextual level for the island which did not include phase differentiation. These data showed a low number of terrestrial sources in comparison to other sites in the highland area such as Cerro Brujo (Linares 1980).

Plant remains were also obtained. A core near the site, utilizing a “modified Livingston piston” was used to obtain pollen data related primarily to subsistence and vegetation changes (Linares 1980:488). The 350 cm core demonstrated that maize (*Zea mays*) and manioc occurred at the lowest level, but while the maize continued to be found at multiple levels all the way to the top, manioc did not (Clary 1980:489). Limited macrobotanical remains were also recovered, measured and analyzed. The bulk consisted of palm fruit fragments, but maize cobs and some kernels were also recovered. She found the limited kernels in the same trench that was designated as a “living” activity area (1980: 163). One notable exception in subsistence compared to other coastal sites in central Panama (Monagrillo) or the Atlantic Gulf (Sitio Drago) was the lack of evidence of extensive shellfish consumption. Unlike these sites, no middens primarily composed of shell, have been found on Isla Palenque (Linares 1980).

Lithics represented a major portion of the excavated artifacts from IS-3 during her second study. Over 2000 lithic artifacts were recovered, analyzed and classified primarily based on “final method of manufacture” and secondarily on inferred tool use subcategories (Linares 1980:429). The methods of study included microwear analysis, ethnographic analogy and experimental replications to interpret tool functions. Linares also implemented ethnographic analysis of native ‘Guyami’ subsistence patterns. She incorporated these methods to synthesize an interpretation of lithic tool use as primarily being implemented for the clearing of areas to farm and to process maize (Holmberg 2009).

Aside from Linares' investigations, no other published research has been conducted on the island. Aside from research, recent development of the island did necessitate more archaeological work. There are several unpublished environmental impact studies (EIS 2011, PES 2003) with archaeological components detailing additional areas that were investigated on the island. These studies utilized some limited test pitting along with surface searches. The archaeological data recovered from these soundings were described as not having significant cultural significance to preclude the future development of the island. Despite the limited nature of these surveys, they did provide some important information to determine whether other parts on the island demonstrated possible additional "domestic/activity" areas.

The limited archaeological history on Isla Palenque has provided an important basis that can be used to build upon for research. The cultural chronology developed by Linares does provide an understanding that other Gulf islands were contemporaneous with Isla Palenque. This is important to the interpretations of settlement questions related to Boca Brava, because while limited study has not yet elucidated a settlement there, it is highly probable that some habitation occurred on the neighboring island as well. This relation is important in trying to tease out Isla Palenque's actual role. Within the island itself, the ceramic chronology is critical for comparative analysis of other areas outside of IS-3. With these preliminary data we can better understand change over time and develop a broader and more comprehensive understanding of the prehistoric people who inhabited the island.

5 SETTLEMENT PATTERN STUDIES

In the following section I review what has been described of Isla Palenque's settlement. I also investigate several examples in western Panama and southeastern Costa Rica for the sake of developing a comparative framework. Corrales (2000) details some of the general settlement pattern changes in the Gran Chiriquí for several different periods. Early on during the La Concepcion phase in the plains and piedmont next to the Talamanca range, settlements were described as small, and with no major structures. In the next periods, some data indicated settlement patterns were changing. While most areas continued to be characterized as having no identifiable structures, highland sites, mainly on hilltops and river valleys, showed some evidence for stratification. One example is Barrilles, located approximately 65 km NE of Isla Palenque, which had artificial mounds, paved causeways, statuary and petroglyphs. In the western part of the Gran Chiriquí, additional settlement changes indicated more hierarchy during this phase. In the Terraba basin (Costa Rica), settlements have been uncovered that indicate circular house foundations, artificial mounds, stone walls, and internal residential divisions suggesting more stratification (Drolet 1992). Understanding if there is spatial division reflected in Isla Palenque's pre-historic settlement pattern is a salient part of the question I address.

5.1 Settlement pattern on Isla Palenque

There are no historical accounts describing settlements on Isla Palenque. What we do have are Linares' interpretations based on two spatially limited studies in 1961 (4 pits within a 40 m x 40 m area) and in 1971 (6 block excavations) within an area that is approximately 100 m

x 150 m. Despite the limited information, she made some sweeping assumptions regarding the socio-political nature and spatial distribution of Isla Palenque's possible community. She claimed that at its highest occupation (San Lorenzo phase) several hundred people lived in a nucleated, continuous settlement that was probably the seat of a paramount chiefdom serving as an important economic trading center (Linares 1980). Some salient facts regarding her interpretations of the settlement are described below.

- 1) Interpretation of nucleation is primary based on the amount of materials found on/or near mounds and surrounding surface scatter. No soundings/test pits were done on any other part of the island.
- 2) Outside of the mounds, no other evidence of architecture has been found in the center. She claims that there was a hard packed "plaza" floor in one of the excavations associated with the group of columns. She labels this a special purpose structure.
- 3) Her evidence for dwelling areas was based on one excavation. This was on a flat area near mounds that were devoid of angular rocks with a 20 cm deep layer of cultural material spread evenly on the surface (Linares 1968a). She indicates this was surface trash that accumulates normally on house floors around the periphery of houses. No evidence of post holes or hearths was found in any excavations. She also interprets that extensive stands of the corozal palm grew in between the houses (Linares 1980:77) based on one excavation. She speculates that housing was probably covered with straw (Linares 1968).

Aside from settlement patterns, the question of trade is equally important for the island, but it is uncertain at best. Linares (1980) claims, that the occupation on IS-3 became dependent on highland sites for the trade of stone tools around 900 AD. She then speculates as to what was traded out for the incoming goods. She lists fish, salt, or possibly palm fruit as the possibilities based on material remains from several excavations and ethnohistoric association. The whole concept of “chiefs” controlling trade hinges on this speculation of Isla Palenque as a major trading port as no other evidence for nucleation has been proposed.

Another aspect of trade to consider on the island is “prestige” items. Helm’s (1979) work argues that “long-distance contacts for the acquisition of esoteric knowledge were critical for establishing political power, as opposed to economic gain”(Haller 2004:4). This is an important consideration since, up to now, no prestige items such as gold have been found at Isla Palenque. The association is important considering how Corrales (2000:227) states that down the line gold working is heavily associated with paved causeways and circular houses, neither of which has been found on the site to this date. Trade wares, from sites as far away as central Panama in Coclé and to Gran Nicoya in northern Costa Rica, give some evidence of exchange, but the limited numbers combined with the lack of “prestige items” highlight some important questions regarding what constitutes “chiefdoms”. In trying to understand other settlement possibilities, I review several external examples in the broader region.

5.2 Western Panama

There are several sites in western Panama that can give some clues to the changing settlement patterns in the region. Sitio Piti González is one of these sites. Located in the

highlands of western Panama, approximately 60 km northwest of IS-3, this locale was interpreted to be a possible production center that supplied other areas with stone tools (Linares 1980). Cooke provides some speculation as to the economic importance and use of tools that were developed in places such as this site.

Polished stone tools (axes, chisel, etc.) were made everywhere in large numbers, often fashioned or reworked at specific settlements. This burgeoning industry was certainly related to the needs of farming settlements increasingly concentrated in the riverine and lacustrine zones bordered with gallery and mature forest, which had to be removed to gain access to deep colluvial zones and to the construction of large dugout canoes for colonization of offshore islands such as El Cano - Costa Rica [Cooke 2005:149].

Sitio Piti Gonzales, excavated by Linares' colleagues (Linares 1980), does provide some archaeological evidence for the layout of a village and the shape of a possible domestic structure. The following are some of the salient characteristics interpreted of the settlement (Spang and Rosenthal 1980: 280-285):

- 1) On the basis of soundings (post hole test pits), the site was interpreted as one of several discontinuous villages located on the flatter contours where single dwellings were placed 40 to 50 meters apart and about the same distance from special features such as the communal hearth.
- 2) Block excavations revealed 22 post molds that formed an oval shape with a 7 meter diameter.

Another example in western Panama is located across the continental divide on the Caribbean Gulf coast. The Aguacate peninsula provides a different example of coastal settlement

patterns. The site of Cerro Brujo was excavated by Linares and Ranere in 1980 for comparison to the Pacific and Highland sites that they used to support their theory of Adaptive Radiations in the region (Linares 1980). Of the Peninsula, Linares remarked that:

[t]he Bocas peoples lived in scattered and discontinuous hamlets of short duration. These were on ridges, possibly for defense. Only half of the Aguacate Peninsula was occupied at any one time. Dwellings were so scattered that it is difficult, if not impossible, to draw exact boundary lines around each hamlet [Linares 1980: 246].

Linares (1980:66) provides some specific settlement descriptions of this site:

- 1) The distance between dwelling structures was approximately 300 m apart.
- 2) Two types of "activity areas" were distinguished: the flat, central part of the ridges, where the houses were located, and the edges and slopes, where the trash was discarded.

Linares (1977: 311) stated that “the archaeological settlements of this province appeared to represent marginal populations organized on the basis of small family groups without status differentiation or political organization of any recognizable kind”, but recent work by Tom Wake (2004) in the nearby Island of Sitio Drago has countered Linares and Ranere’s (1980: 66) suggestion that the populace of the Aguacate Peninsula, existed in a “cultural backwater”.

5.3 Southeastern Costa Rica

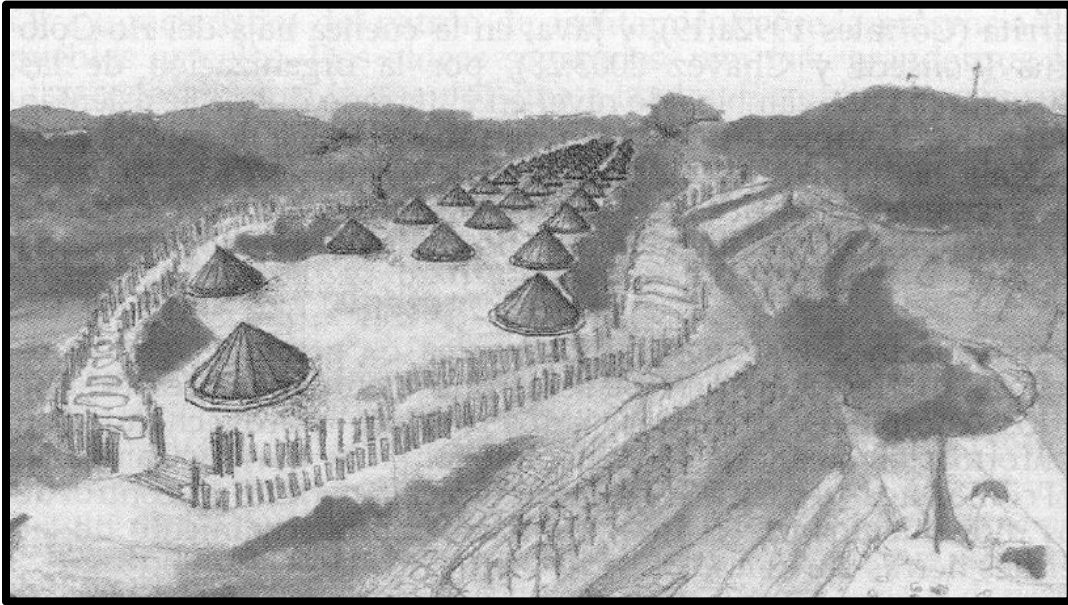


Figure 5.1 Idealized Settlement Model of Coto (after Corrales 2006: Fig 6)

There are several sites in Costa Rica that give some evidence of the possibility of palenques and round structures in the region. Corrales (2000) describes one of these villages from interpreted historical accounts. These accounts describe some settlements in the province of Coto, located in southern Pacific Costa Rica. The descriptions from Vazquez de Coronado's journey (AD 1563) into the region detailed some salient characteristics of the settlement (Corrales 2000: 161-165):

- 1) The village was one of seven towns Coronado witnessed that were fortified with defensive palisades.
- 2) The village was divided into one large and one small section, each surrounded by multiple defensive trenches and palisades of thorny trees. It was an asymmetrical settlement with 84 houses as opposed to 12 in the other.
- 3) Inside the palisades, large elevated round structures were each occupied by

approximately twenty-five natives including wives and children.

Off the southeastern coast of Costa Rica, in the Diquís sub-region of the Gran Chiriquí, the island of Cano provides another example of an island “center” that we can compare. The island is located 17 km northwest of the Osa peninsula (160 km NW of Isla Palenque) where oral history describes it as a pre-Columbian cemetery (Finch and Honetschlager 1983:189). The island is approximately twice the size of Isla Palenque and can be described generally as high (50 m) and flat with steep cliffs interrupted by several small sandy beaches around the edges. Some salient characteristics on the island were detailed by the researchers:

- 1) The site had a high concentration of worked stone such as manos, but also many suggesting a non-utilitarian use such as elaborate metate fragments, stone dolls, and round stone balls .There were reports of gold, greenstone, and jade supporting the contention that there were high status burials on the island (Finch and Honetschlager 1983:191-194).
- 2) All the sites were found on high flat areas of the island, and within 100 m of ravines carrying fresh water streams. Most of the concentrations in the sites were shallow (less than 50 cm.)
- 3) Cano was contemporaneous with Isla Palenque, having La Concepcion, Aguas Buenas, and Chiriquí phase pottery, but no Burica or San Lorenzo materials.
- 4) All sites had undecorated and comparatively crude utilitarian ceramics associated with habitation areas.
- 5) Like IS-3, shellfish are notably absent

- 6) Like IS-3, few trade sherds were recovered.

5.4 Synthesis

While the sites discussed above do provide some information about possible settlement patterns on the island, there is not much evidence yet outside of possible historical association that we can harness to suggest that Isla Palenque may have been a palisaded community with an extended village serving as a port. Regardless, the scant archaeological record in Panama regarding settlement does give some possibilities of what the structures within a palisade may have looked like, if this were the case. The archaeological record from the several locations detailed above does suggest that round structures were used in the region at different locations, but there is variability. Some examples provide a preference for flat elevated areas of habitation near water sources, while some historical examples also suggest the possibility that elevated housing structures may have been built on trees along the coast (Griggs 1995). With the understanding of the discordant and debated past record, varied and limited archaeological data, and the biased historical accounts, I move forward to discuss what Isla Palenque looks like today.

6 ISLA PALENQUE'S CURRENT STATE

Isla Palenque today is not actually an island, but in reality, a peninsula of the southeastern end of Isla Brava. Boat transport, normally from Boca Chica, is a requirement to get to Isla Palenque, as what once may have been a land bridge (Linares 1980) across from the small coastal village is now a river that cuts off access to Boca Brava. Transport to the island highlights several important factors that cannot be understood from looking at satellite imagery or maps. The islands in the Gulf of Chiriqui are volcanic rock outcroppings with some areas of significant elevation gradient. The islands are part of an area known as the Las Lajas geologic formation which is characterized by floodwaters, sediment consolidated sandstones, corals, mangroves, conglomerates, carbonaceous shale, and delta depositions (PES 2003). The bay is relatively shallow varying from 1.5 to 2.25 fathoms deep (Linares 1968). According to Cooke (2005:142) the coastlines in Panama stabilized approximately 7,000 years ago. This makes it probable, that besides the gradual and slow erosion processes here, the area surrounding Isla Palenque has remained similar to what it was in the past (Linares 1980). The following section will detail the aspects of topography, ecology and the current development on the island.

6.1 Topography

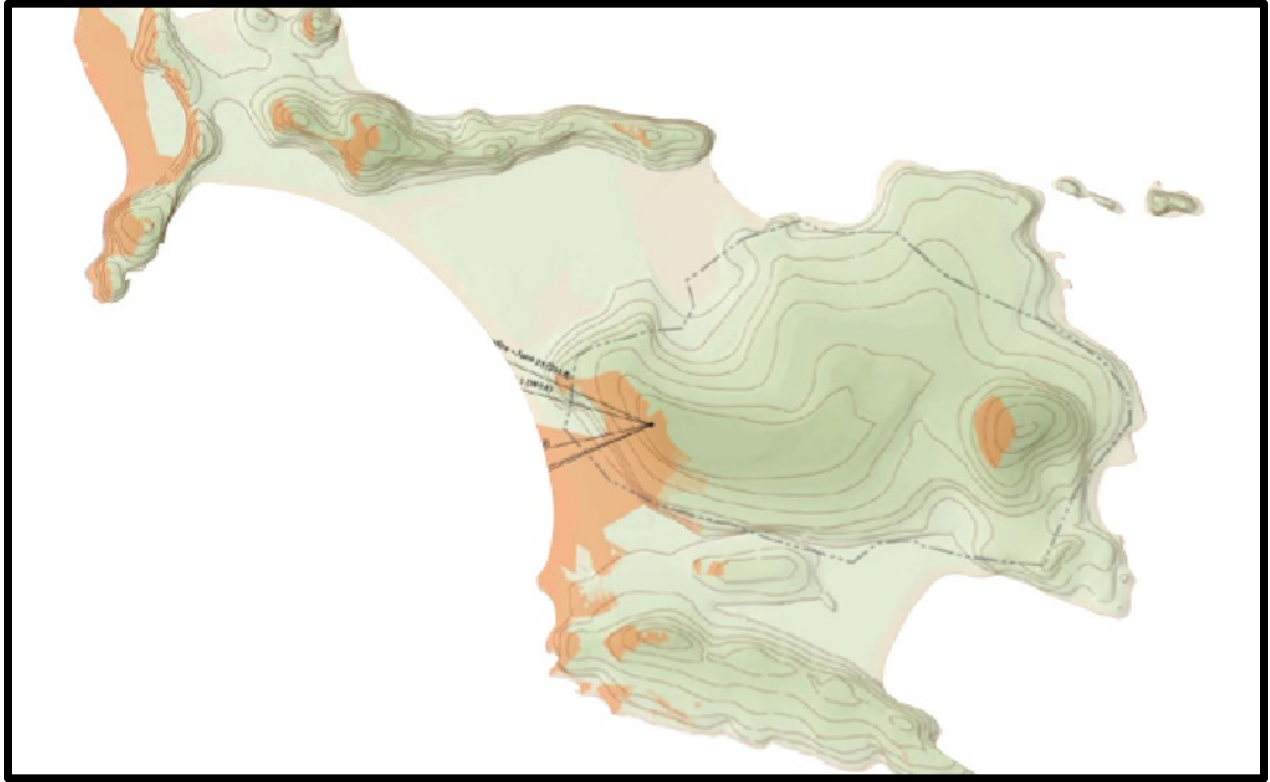


Figure 6.1 Elevation gradient (PES 2003)

Maps at 1:50,000 scale and satellite images do little to represent what Isla Palenque is. Figure 6.7 provides a better representation of the elevation gradient on the island than what those other sources provide. The island is really two distinct land areas separated by a low lying plain that is flooded to varying degrees most of the year. The northwestern part of the island is made up of steep ridges that drop off directly to the ocean, beaches or low lying areas where flooding and pooling of water occurs normally. The areas on the ridges provide adequate walking trails, but significantly fewer flat areas than are on the eastern part of the island.

The eastern part of the island can be separated into two areas comprising a northern and southern zone. The southern zone, while not as steep as the ridges to the west, has limited flat space in comparison to the northern region. The areas here, composed of deforested grasslands, have traditionally been used for grazing animals that were maintained by the former family who inhabited the island (PES 2003). The slopes on the north side of this southern zone are treacherously steep. The grade on its southern side is less severe, but is still steep enough that walking here has to be carefully negotiated. Many areas along this side drop off to sheer rocky cliffs.

The northern zone of the eastern portion of the island comprises most of the flatter areas of the entire island. From the north moving south toward the center of the island, the land slopes upward gradually, flattens out, and then slopes downward more steeply. Moving east to west along the eastern part of the island, there are steep upward slopes that reach flat elevated areas. These flatter areas slope downward before climbing steeply up and over an eastern hill before reaching the coast. The area designated by Linares as IS-3 is located on the saddle on the center of the eastern portion of the island (see Figure.8.1).

6.2 Ecology

The islands topography represents varied ecological zones that cover an area of approximately 160 hectares (EIS 2011). These areas include primary forest, secondary regenerated forest, deforested grasslands, mangroves and beaches. The forests and growth of vegetation on the island was a major consideration to the study. Many areas are completely overgrown and surface visibilities for surface collections are heavily impacted. Unlike open farm

areas that enable some ease in collecting surface scatters, this is not the case for most of Isla Palenque. Heavy forest and overgrown vegetation cover approximately 57% of the land mass on the island (EIS 2011).

The springs also demonstrate an important factor related to the heavy rains and elevation on the island. Some springs show evidence of the movement of artifacts from higher elevation areast to lower coastal zones. This is a critical factor to consider given the IS-3 site center is located close to the highest elevation point on the island. Considering the extreme tropical rains, it is clear that water flow along these springs is intense enough to move large, heavy artifacts. With the dry season, the springs dry up considerably with little to no water flow. The island has several water tanks that they use to collect the intermittent rainfall during this period, but also utilizes the only fresh water source (an artisan well) when needed to supplement. This well is close to the flooded plain near the center of the island.

6.3 Development

A major impact affecting the study of the island is the current development. When Linares made her investigation in the 1960s and 1970s, the island was inhabited by a family that maintained a small footprint on the island's north coast. Today, a business group that specializes in ecotourism is developing the island.

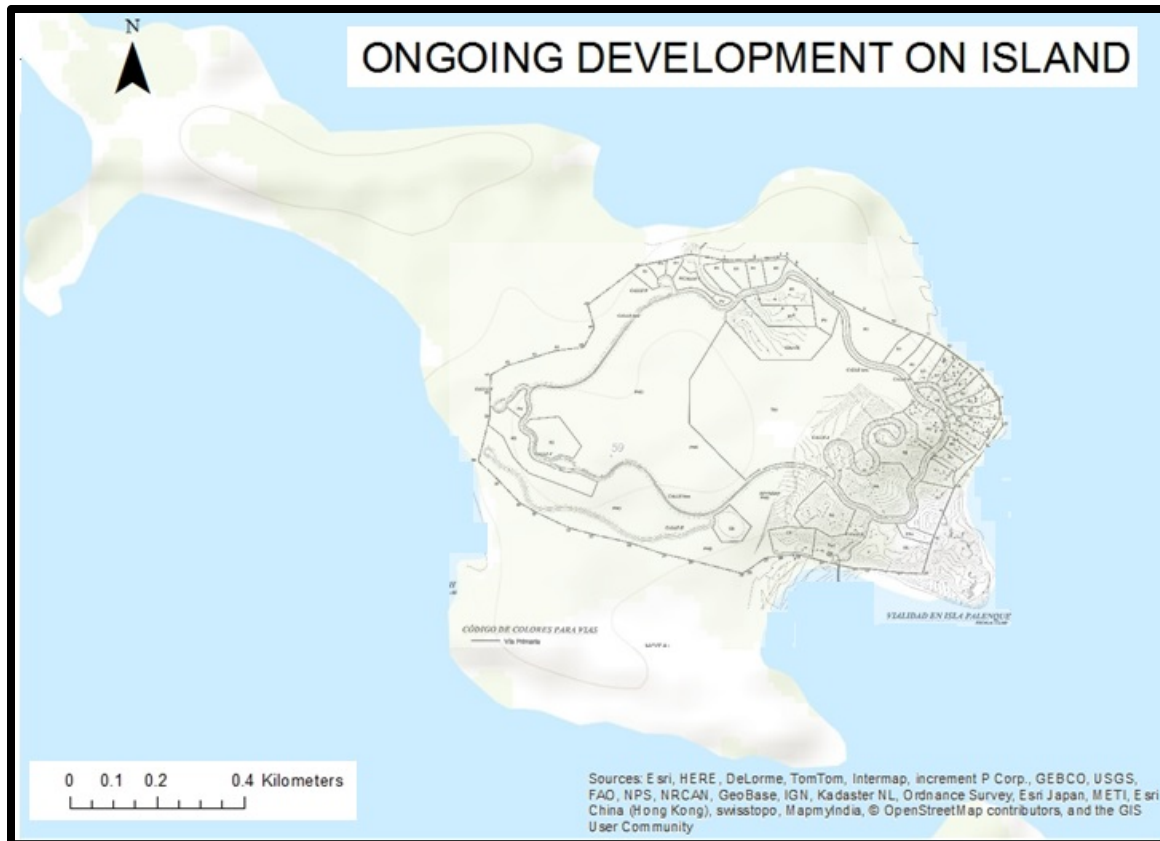


Figure 6.2 Planned Development

One of the goals of the development has been aimed to balance the island's diverse ecological areas with some targeted residential, staff, and hotel locations (EIS 2011). Figure 6.2 shows the planned areas of development, which are predominantly located on the external portions of the island close to the coast. The center of the island, where the IS-3 site center is located, is within an area that has been designated for long-term ecological preservation. Another main infrastructure development is a road that encircles the center of the island (called the ring road). The road has been covered by materials (shells, gravel, stone, etc...) that have been dredged up from the ocean floor north of the island. The island also has several roads that have been cut, but not covered. One of these cuts goes through the center of the island bisecting (north

to south) the area encircled by ring road. Aside from the major road, the island has a network of cleared trails through the center and along the coast that are maintained for tourist use.

In summary, the islands topography, ecology and current development are significant factors that affect both the methodological approaches to the study as well as an understanding of former settlement possibilities. The limited flat surface on the island would have probably constrained the population size as well as dictate where settlement would occur on the island. The interpretation of artifacts from lower elevation areas must be critically analyzed given the possibility of erosion. The factors to both the past and present contextual considerations highlight the important aspect that landscape plays in understanding pre-historic settlements.

7 METHODOLOGY

Does Isla Palenque fit into a regional cultural model such as the one proposed by Frost indicating a possible duality, and in turn a stratification related to “chiefdom” level society or does it fit with other settlement patterns observed in the Greater Chiriqui region? The theoretical question I am asking requires the identification of possible distinct activity areas outside of the site center to assess the settlement pattern and extent of nucleation on the island. Below, I detail the process and methods I used, along with some impacts from previous archaeological work that required consideration. The steps covered in the following section include the relocation of IS-3, unsystematic pedestrian survey, shovel tests, test units in select areas, and artifact analysis on site.

7.1 Relocate IS-3

The main reason to find the original site was to delimit the area and exclude data collection there. Two things impacted this decision. The first was that there was already information for comparative analysis from Linares’ historical work. While extremely interesting, Linares’ site was not the focus of my study. I was aiming to expand on her work to elucidate the scale and nature of the entire settlement on the island. The second consideration was the laws requiring turnover of materials to the government. I did not have the manpower or logistical capability to transport assemblages of significant numbers or size, which were both possible given Linare’s descriptions of the site (Linares 1980).

The information from Linares' separate works (1963, 1980) made the geo-spatial location of the site confusing. It is important to understand what I am referring to as the IS-3 site. I am using Linares' 1980 description, which encompasses the entire 260 m x 330 m area in the center of the island. This area was named La Pitahaya (IS-3) by Linares, who designated it as "a single archaeological locality whose boundaries were determined after clearing and mapping based on the surface cap of artifacts" (1980:73). Her separate works (1963, 1968, and 1980) all used the same site designation (IS-3), but her described excavations indicate the possibility of two different site locations. Her 1968 publication suggests this difference when she states, "it also seems that cemeteries with urn burials existed in the island, and that we missed them by concentrating on the habitation sites" (Linares 1968:22). Additionally, her dissertation (1963) gave estimates of the site location which placed it farther west than her later work (1980). This may have been an intended obfuscation to protect the site, but the difference between the number and location of mounds on the island is critical for interpretation.

If the possible different locations were actually the same, the implications are significant as well. Her 1961 (Linares 1968) work did not detail any columns on the surface and the surface deposits were described as "scattered sherds" between the ridges (Linares 1968a:7). Her 1971 excavations (Linares 1980) describe a completely different context. This presents the possibility of the unintended consequences relating to the published broadcasting of information, or her hiring of local workers, which may have resulted in extensive decontextualization. All of this is critical because Linares' suggestion of a "paramount chiefdom" hinge largely on the notion of a large settlement on the island. If the broad surface cap is a result of looters, and subsequent movement of artifacts downhill, the "imagined" site magnitude becomes smaller.

Given these uncertainties, the relocation of the site became critical. Guided by one of the local employees, I was able to positively identify the site center by finding the columns Linares described along with the mounds. I delimited the site by surveying away from this point via cardinal directions to where the roads, the staff camp or sharp increases in elevation marked end points. These locations were recorded as GPS waypoints. The delimited area matched the general dimensions of the site locality described in Linares' (1980) later work.

Within the delimited area, there was evidence of the archaeological material Linares (1968, 1980) described. Along with the columns, this included surface scatters, the small mounds, several open pits, and several broken metate pieces. Areas farther away from the mounds and open pits had fewer surface scatters of sherds and lithics.

7.2 Unsystematic Pedestrian Surveys

The main goal of my pedestrian surveys was to identify discrete, flat areas on the island away from the site center. I primarily focused on using the network of trails on the island to increase the chances of locating surface scatters, but I also went off trails to examine root throws and springs. The trails on the island were maintained to different levels. Some allowed visibility directly to the surface, while others had to be cleared of foliage with rakes. Some trails had to be reopened with machetes to provide access. I also surveyed covered roads, but since dredged materials from the bay on the north were used to cover the road cuts, we analyzed any discovered items on a different contextual scale. The ceramic or lithic artifacts we discovered on the trails were collected and their location was marked by a Garmin gpsmap 64 unit. The results of the pedestrian surveys were used for the location of shovel test pit locations.

7.3 Shovel Tests

Shovel test pit surveys are seen as a valuable method in the study of the region. “[I]t is reasonable to propose that areas of very high sherd concentration represent or are very close to areas of considerable activity, most likely occupation areas ”(Quilter 2004:96). Quilter’s work at Rivas in Costa Rica (2004), Spang and Rosenthal’s (1980) research at Sitio Pit González (BU-17) in highland Chiriquí, and Palumbo’s(2009) work in highland Vulcan Baru, are just a few examples in the region . The method was critical on Isla Palenque as well due to the inability to assess surface scatters.

The use of this method can be seen as a step in a “nested” sampling process to identify areas where concentrated materials indicate an activity area or household to be investigated. In this study, the next step was to identify possible domestic locations within the discrete areas that were previously identified by the unsystematic pedestrian search. While some temporal data can be obtained through this method, this was not the primary goal of the test pits. As Palumbo (2009:47) states, “chronological control is notoriously difficult to achieve in shovel tests or surface collections, especially in multi-component sites”.

This is partly due to the variability in the depth of samples that are not necessarily dictated by an investigator. Quilter utilized 30 cm depths on his shovel test at his site in Rivas (Quilter 2004:95). Palumbo utilized a 70 cm depth for his shovel test (Palumbo 2009), and while I planned on doing the same on Isla Palenque, my test pits resulted in being 40 cm +/- 10 cm. This was a function of the rocky conditions on the island as well as limited logistical capabilities to replace broken tools.

The spatial interval of our shovel tests (STs) was also a consideration of theory and the realities of the conditions on the ground. Using the limited information that Linares had postulated on settlement patterning from the highlands (Linares 1980), and a methodological model based on Palumbo's (2009:40) research, I initially planned to sample five shovel test pits within designated 50 m blocks: one in the center of the main block, and four at the center of each 25 m x 25 m quadrant. It became quickly apparent the thick vegetation impacted the visibility to clear areas and effectively layout flags in the staggered fashion required. This was more time consuming than what I have envisioned. We shifted to laying out pin flags in a more basic grid pattern. We located flags every 25 m along cardinal directions. The use of cardinal directions was critical in this environment because the placed flags, even though bright orange, could not be seen more than five to ten meters away in some areas. It was easy to lose orientation here. The start and end points of transects were dictated by the elevations gradients reflecting steep slopes (approx. more than 25 degree grade). Once the pin flag grids had been laid, and labeled, we placed the test pits. Each person maintained his own transect and dug each test pit along the path. All test pit material was screened through a ¼" mesh. The recovered artifacts were bagged with pertinent information (site area, pin flag number, depth, date, etc.) for processing. All small surface artifacts were also collected with pertinent information recorded. The analysis of shovel test pit concentrations would determine if and where test units would be placed in a specific area.

7.4 Test Units

It is important to assess the temporal context of a possible habitation. The placement of several units allowed me to assess the possibility with more control than the shovel tests. This

was another step in the “nested” process I described earlier, but with the goal of collecting provenienced cultural material to assess change over time. While STs provide limited temporal information, unit excavations provide the method to attain the required control for this assessment. This control is critical to understand typological changes over time as well as an understanding of the possibility of single vs. multiple phases of habitation in the different areas I investigate.

Given the time constraints, I was only able to excavate two 1 m x 1 m units. Unit location within designated areas was dictated by analysis of ST data as well as a consideration of the forest environment. We had to make adjustments based on the proximity of large trees close to concentration areas. Once located, we excavated units in 10 cm arbitrary levels down to bedrock. As in STs, all material was screened through ¼” mesh to isolate cultural materials. The recovered artifacts were all bagged with pertinent information noted.

7.5 Artifact Analysis

Artifact analysis of recovered items followed basic procedures including washing and drying, thickness measurement, weighing, photography, and classification. Several factors impacted the requirement to do the analysis of ceramics on site. Constrained by Panamanian laws (1982, 2003) requiring turnover of artifacts, no research space allocated of requested institutes, and very limited access to collections in the country, I was not able to do comparative analysis with any collections. Both of the museums in the capital and in David were closed during my studies. These factors forced most of my analysis to be conducted at night after long hours in the field. This was a difficult task complicated by the variability of Chiriquí pottery

described by Palumbo as a “bewildering array of wares, styles, and varieties with different names: probably the reflection of both actual stylistic diversity and many years of ceramic studies with little communication between researchers” (Palumbo 2009:80). There is a long list of researchers from both sides of the Panamanian/Costa Rican border who have contributed to the array. Hoopes gives credence to the difficulty that this has caused:

Unfortunately, the interpretation of Greater Chiriquí culture history has been made difficult by scholars who disregarded precedent and chose to ignore or replace Haberland’s original terminology. At least three different systems of ceramic classification have emerged to characterize material from Greater Chiriquí (Haberland 1961c; Linares 1980b; Shelton 1984). In many cases, different type names have been used to refer to the same pottery classes. In others, the same name has been applied to materials that appear to be very different. [Hoopes 1996: 15]

The following table provides some salient characteristics of Linares’ contribution to the array.

For more detailed information, please refer to Linares 1968a.

Table 7.1 Gulf Coast Ceramic Types

Phase	Name	Body wall thickness (mm)	paste color	temper	surface color
Burica	Maroon slipped(thick), Plain Ware C (thick)	10-14	dark grey core (possible fire clouds)/or buff throughout	homogenous quartz sand, light colored, gray paste	light buff to light brown
Burica	Maroon slipped (thin), Plain ware C (thin)	3-5	dark grey core (possible fire clouds)/or buff throughout	homogenous quartz sand, light colored, gray paste	
San Lorenzo	Aroyo polished line	7-10	buff/pale grey . core dependend on oxidation	"dirty" clay with lрге impurities	buff to reddish brown
San Lorenzo	Banco Red line	6-8	orange-buff to very light grey	fairly pure	Buff
San Lorenzo	Caco red slipped(thin), Plain ware D (thin),	6-8	light buff band with dark grey cross section	"dirty" clay, gritty	Buff, light orange to light grey
San Lorenzo	Caco red slipped(thick), Plain	12-15	light buff band with dark grey cross section	"dirty" clay, gritty	Buff, light orange to light grey
San Lorenzo	Cangrejal Red Lined, thick	8-10	light buff to grey , depending on oxidation	pure, almost no temper	bright orange to light buff/cream
San Lorenzo	Cangrejal Red Lined, thin	4-7	light buff to grey , depending on oxidation	pure, almost no temper	bright orange to light buff/cream
San Lorenzo	Castrellon, red slipped	7-10	uniform red-buff with wide grey core	little bit, some feldspar points	most bright orange/some attenuated buff/a few lighter
San Lorenzo	Centeno red banded	7-10, variation on same vessel	cream color	almost pure clay	even cream colored, same color as cross section
San Lorenzo	Horconcitos, red banded, Plain Ware H	8-10	orange-buff to very light grey	fairly pure	from light buff all the way to blk
San Lorenzo	Linarte Zoned Red Line	5-9, variation on same vessel	orange-buff to very light grey	fairly pure	rich orange to yellow
San Lorenzo	Pan de Azucar red lined	5 , consistent	orange-buff to very light grey	fairly pure	even buff
San Lorenzo	Zapato, red banded	6-11	even buff, w grey interior dep. On oxidation	homogenous pure, some hemetite	light buff, orange red, light todark grey
Chirriqi	Cavada applique and red banded	6-10		like zapato red banded	
Chirriqi	Tarrago biscuit ware	4-6 (very thin)	very homogenous buff/reddish/grey - complete oxidized all found	porous and friable	buff , to reddish orange to pale grey
Chirriqi	Villalba red streaked, thin	thin (5-7 mm)	orange-red to grey buff or dark grey, sometimes almost black		charcoal grey to almost black/ buff to light grey
Chirriqi	Villalba red streaked, thick	thick (9-13 mm)	orange-red to grey buff or dark grey, sometimes almost black		charcoal grey to almost black/ buff to light grey

I used Linares' basic type classification as a starting point to identify recovered sherds primarily based on rim shapes and other modal characteristics. I also utilized Corrales (2000) to attempt to understand and consolidate the complexity. His exhaustive detail of ceramics has been viewed as extremely useful by other contemporary researchers who have proposed that it should be the new baseline of reference for future analysis (Palumbo 2009)

I did not analyze temper or paste because the significant variation was immediately recognized when I started analysis. Other researchers (Baudez 1996, Shelton 1984) who have looked at these characteristics have also indicated "they were not always the best indicator of variation or continuity in the Greater Chiriquí" (Corrales 2000:85). Linares also indicates that while "shape was of primary importance, and decoration a useful secondary category, classification on temper proved useless: all variations in size graded into one another and the colors cross-cut all size distinctions" (Linares 1980:395). I did attempt to analyze some sherds on the basis of thickness due to the fact that over 98% of my recovered ceramic sherds had no other diagnostic features. This was a futile attempt due to the sherd thickness of the different phases having a great deal of overlap (see Table 4.1).

In Summary, the methods used in the study were implemented to systematically identify distinct activity areas of high artifact concentrations outside of the site center. Additional methods were then used to analyze concentrated areas with stricter temporal control to assess provenience of artifact assemblages. This was important in determining the possibility of occupations on these areas, their possible cultural association, and the time depth associated with them. The following chapter details the results of these methods.

8 RESULTS

The following section covers the results of the pedestrian surveys, the shovel tests and the unit excavations on the island. As discussed above, the results of the pedestrian surveys were used to determine the areas that would be sampled with shovel test pits. In turn, the results of the shovel test pits dictated where the two 1 m x 1 m units would be excavated.

8.1 Results of Pedestrian Surveys

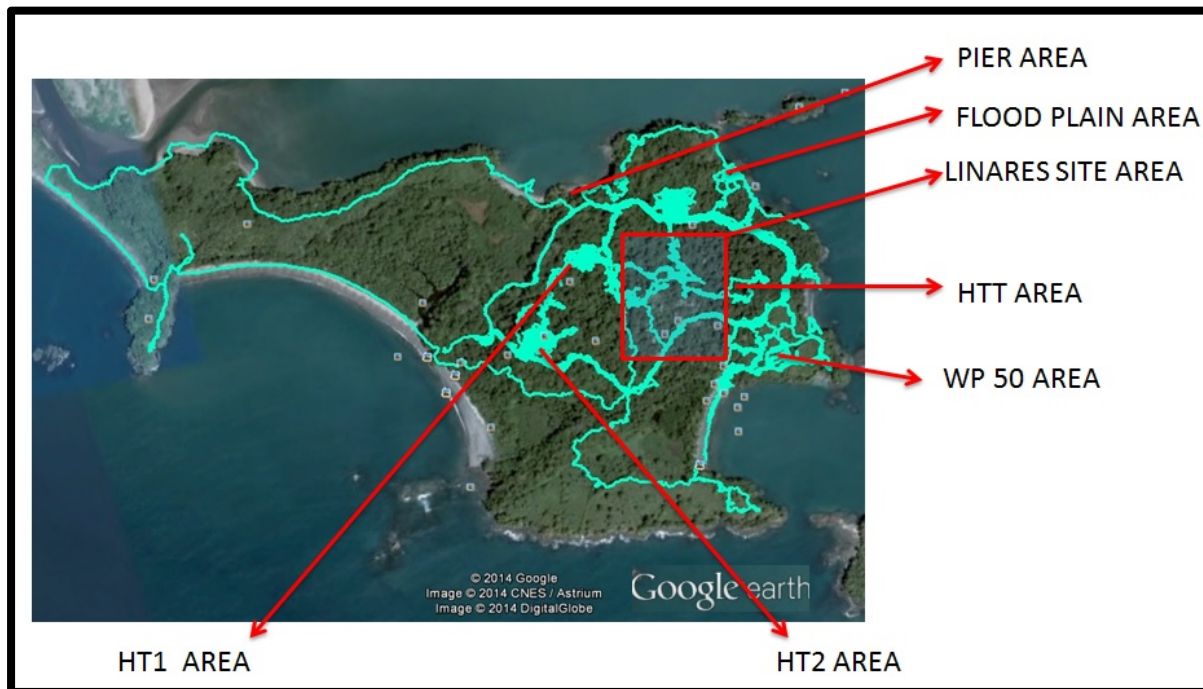


Figure 8.1 Pedestrian Survey – Blue highlighted lines are GPS tracks

The western portion of the island has a trail that runs along the steep ridges. Access to this trail was obtained by utilizing the northern beach west of where a pier is now located. A

steep climb to the top of the ridge gives way to the flat, but narrow trail that extends several hundred meters to the western portion of the island. The ridge is steep and drops off to the ocean on the north, or part of the flooded plain to the south. Flat area on this ridge is very limited with the width varying from mostly around 5' to 8' to several small areas that opened up to around 25'. We found several small, eroded sherds along the path.

The northwestern ridge ends with a steep drop to a lower elevation at its western extent, where the trail splits to either beach access to the north, or access to the western peninsula on the southwestern coast. We searched these trails, but did not find any cultural materials. This area was also investigated with shovel test pits during one of the previous impact studies. The results of this study indicated minimal cultural evidence with no more than several eroded sherds (EIS 2011). Due to the limited flat space and minimal cultural evidence, I interpreted the entire western part of the island was most likely not a location of domestic residences. This was in line with Linares' interpretation of the area as primarily a transit route used to access Boca Brava (Linares 1980).

The trails on the eastern part of the island extended from the pier all the way to the southeastern beach along the coastline. These trails are predominantly on flat low lying areas. Many of these flat coastal areas are lots that are being planned for development and are delimited internally by the ring road (see Fig.6.2). My thoughts on these areas, based on close access to the ocean and their aesthetic appeal, were that some form of activity or occupation probably occurred here in the past. There were several different areas along the northern and eastern coasts that had some evidence to support further investigation to determine this was in fact the case.

In a flat northeastern area along the trail that I designated flood plain area (see Fig. 8.1), we found two large, heavily eroded handles in the springs, several ceramic scatters composed of

eroded body sherds (n=10), and a large lithic tool resembling a possible “hammer stone” or a very large net-weight. The foliage deposition pattern of this area indicated that rainfall generally pools in this location before slowly receding to the coast. The area was delimited by two streams and was prioritized as an area for shovel test pitting.

On the eastern peninsula along the same trails, there were several locations where we found ceramic evidence (eroded body sherds, n=2) and several lithic tools (a nutting stone- specimen L1, and a net weight- specimen L2). I marked the location of this area on a GPS and named the corresponding waypoint 50 (WP50) after the GPS point (see Fig. 8.1). We also found one diagnostic handle close to one of the springs (specimen C1). The zone here was partly covered with a younger forest growth than the primary forest found at the center of the island (PES 2006). This area was partly investigated in an environmental impact study that reflected a spike in mainly eroded sherds compared to other locations (EIS 2011). Development has already begun in this area, but the southern part of the peninsula, where we found the artifacts, had yet to be developed. We prioritized this location for further investigation.

Within the coastal zones, the large area delimited by the ring road in the center of the eastern part of the island, is covered by a dense high forest. There are several internal trails within this area. One begins near the hotel on the eastern coast and goes up and around the north side of the eastern peak towards the center of the island. We did not find any artifacts on the trail near this peak, but due to the proximity to Linares’ site, we investigated the high elevation area on the eastern peak. I designated this area as Hill Top Tower (HTT). The small flat area (approx. 25m x 25 m) on the peak had been cleared of trees for a communication tower. We found three small eroded body sherds on the surface, so we prioritized this area for further investigation (see Fig 8.1.).

On the inland side of the eastern peak, the trail continued through Linares' site area (see Fig. 8.1). Midway across the site, the trail splits. One fork splits south, while the other fork continues westward. The southern trail meanders south several hundred meters before it exits on to ring road. The other trail continued westward for several hundred meters before it crossed an uncovered road cut that bisected (north to south) the area encircled by ring road. I determined that this road cut delimited Linares' site area on the western side. The increase of elevation on the other side of the road cut made it unlikely that any artifacts on that side would have originated from Linares' described site center. We inspected the road cut along the flat areas but did not find any evidence of features or architecture there.

Following the increase in elevation along the trail moving westward we reached a flat peak. I named this area Hill Top 1 (HT1) (see Fig.8.1). We discovered several artifacts (eroded body sherds, n=3) close to the peak so I considered this area a discreet elevated location outside of Linares' defined site and prioritized it for shovel test pitting. The trail from this area meandered south through a steep ravine that crossed a spring, and then continued up a steep rise to a second peak with a different flat elevated area. We designated this area Hill Top 2 (HT2) (see Fig. 8.1). There was a spike in surface artifacts here. Several scatters were found on the trail going up to this area (eroded body sherds, n=2; non diagnostic rims, n=2). Subsequent surveys in this area also revealed that multiple scatters (non-diagnostic body sherds, n=19) were located on several different sectors of this peak. Although these scatters did not have diagnostic characteristics, they were generally larger and less eroded than what was found in the other locations. Directly north and downhill from this peak is the location of the only underground fresh water source on the island (PES 2006).

The southern part of the island was also surveyed on and off the paths. An uncovered road originating from five points (name given to the location where 5 roads intersect) on ring road gave access to the southern ridges. The road meandered several hundred yards before ending at an area that terminated close to a high cliff. There is a trail midway along the road cut that branches off and follows the ridges to the east. The entire southern part of the island was sterile in regards to surface finds. We examined the road south of ring road and did not see any evidence of artifacts despite clear roads cuts providing visibility into the earth up to several feet at some locations.

Along the trails that branched to the east from the road cut, we cleared surface foliage every 25 yards to sample the surface for artifacts along the way. This area, currently deforested and fenced, had comparatively less flat areas were livestock previously grazed. Due to the lack of material evidence, and the elevation gradient, I excluded further investigation in the southeastern part of the island.

In summary, our unsystematic pedestrian surveys had identified five discrete flat areas outside of the previously studied area. The areas were located within the center of the island and the coastal zones. Some of these areas had a high concentration of surface scatters, while a few only had several surface sherds. The discreet areas were named WP50, HTT, HT1, HT2, and Flood Plain. The following section describes the results of the shovel test pits subsequently done in those areas.

8.2 Results of targeted shovel test pits

The main goal of this phase was to identify areas that could be considered activity areas indicative of domestic residences. Palumbo's (2009) and Spang and Rosenthal's (1980) research in the highland sites of Barrilles and Sitio Pitti González (BU-17) were used as the model to assess whether the discrete areas on Isla Palenque might be possible domestic middens associated with former structures (Palumbo 2009:36). In work at the Sitio Pitti Gonzales site, postholes with over 30 sherds were designated as indicative of domestic activity areas that were investigated through further excavations (Linares 1980). There were over 15 postholes (out of 35) at this site that exhibited these concentration levels (Linares 1980:278). We aimed to utilize this standard considering the notoriety of the amounts of materials that were possible on the island. This section details the results of each area that was investigated with shovel tests.

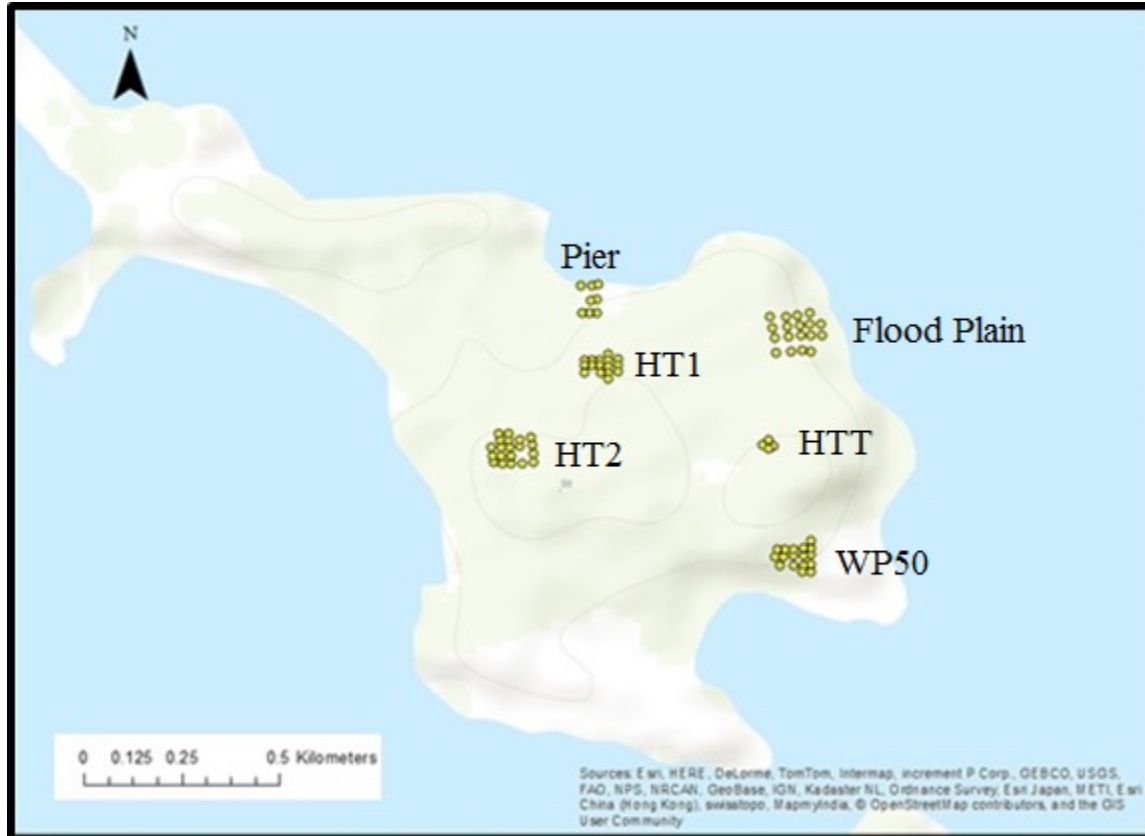


Figure 8.2 Shovel test pit locations on island

8.2.1 Hill Top Tower Area

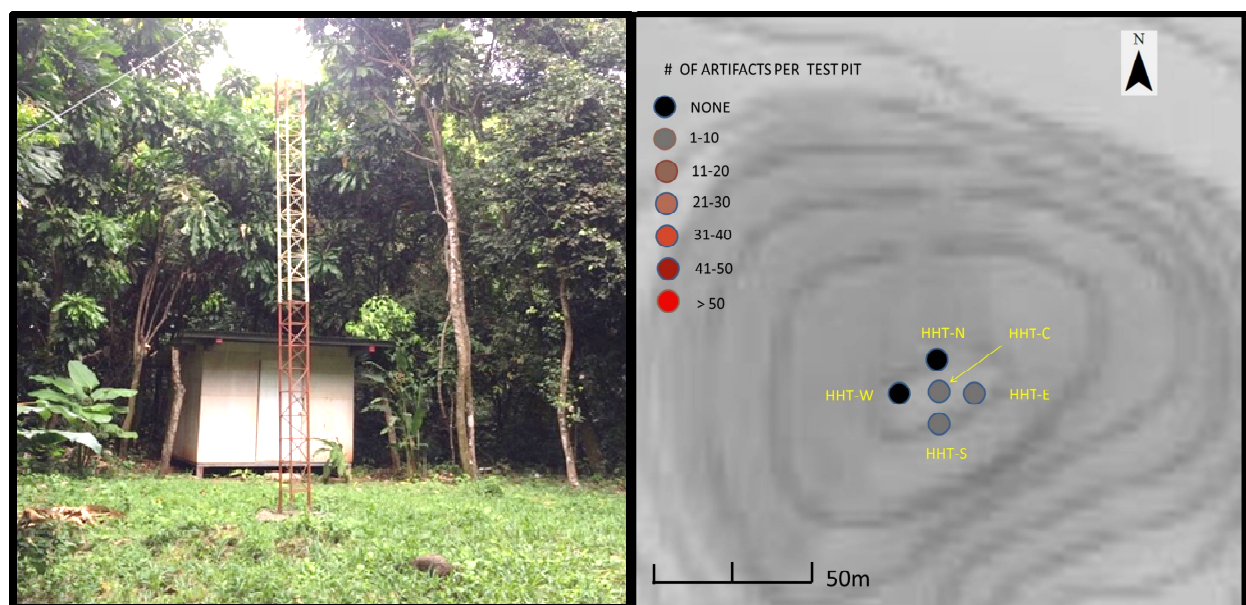


Figure 8.3 Picture of HHT area and # of artifacts per shovel test

The area that we investigated here was a relatively small flat area on top of the eastern peak on the island. The center part of the flat area was cleared, but the ground looked relatively unmodified except for a cement base where a tower was placed. The trees appeared relatively young and most were small to medium in size. There were some large rocks and boulders on the southeast end, but no indication that they had been placed or worked in anyway. There were no indications of any mounds or disturbed pit areas. The STs we tested indicated the ground here was mixed with many small rocks. We found a total of 14 eroded body sherds within the 5 STs. None were diagnostic. No other types of artifacts were found here. In keeping with the model of trying to find sherd densities of at least 30 per shovel test pit, we determined that this area was unlikely as a habitation area and therefore did not warrant for further investigation.

8.2.2 Hill Top 1 Area

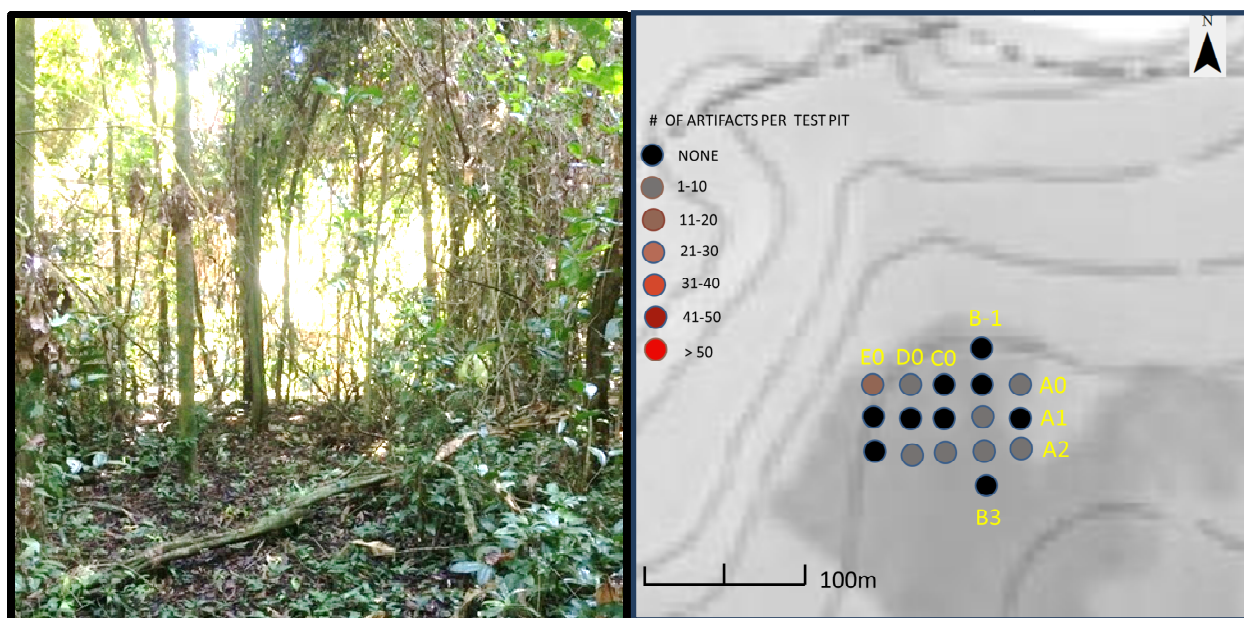


Figure 8.4 Picture of Hill Top 1 area and # of artifacts per shovel test pit

The area on this “hill top” was relatively flat. There was no indication of any mounds or disturbed ground here. The areas had several large trees, but most were small to medium with a significant amount of secondary growth (vines, shrubs, etc....) below the main canopy that required cutting to get through. Besides small random rocks on the surface, no large boulders or stones were found here. We did find one broken celt (specimen L3) on the surface in an area between STs and a small round broken hand stone (Specimen L4) in one of the test pits. The STs were somewhat difficult here as many small to medium rocks were mixed in with most of the dirt. A total of 34 artifacts were found in the 17 shovel test pits. Of these, 32 were ceramics (eroded body, n=11; no ID, n=20; 1 diagnostic). The diagnostic rim sherd was found at around 20-30cmbs in ST E0 and dated to the San Lorenzo phase (specimen C2). Some of the ceramics were also blackened, but this was probably due more so to incomplete oxidation during firing

than sooting as they were blackened all the way through. Although one shovel test pit resulted in a higher concentration of sherds (between 11-20) than the rest, the limited depth (20 cm) and general low density of the remaining STs did not warrant further investigation.

8.2.3 Hill Top 2 Area

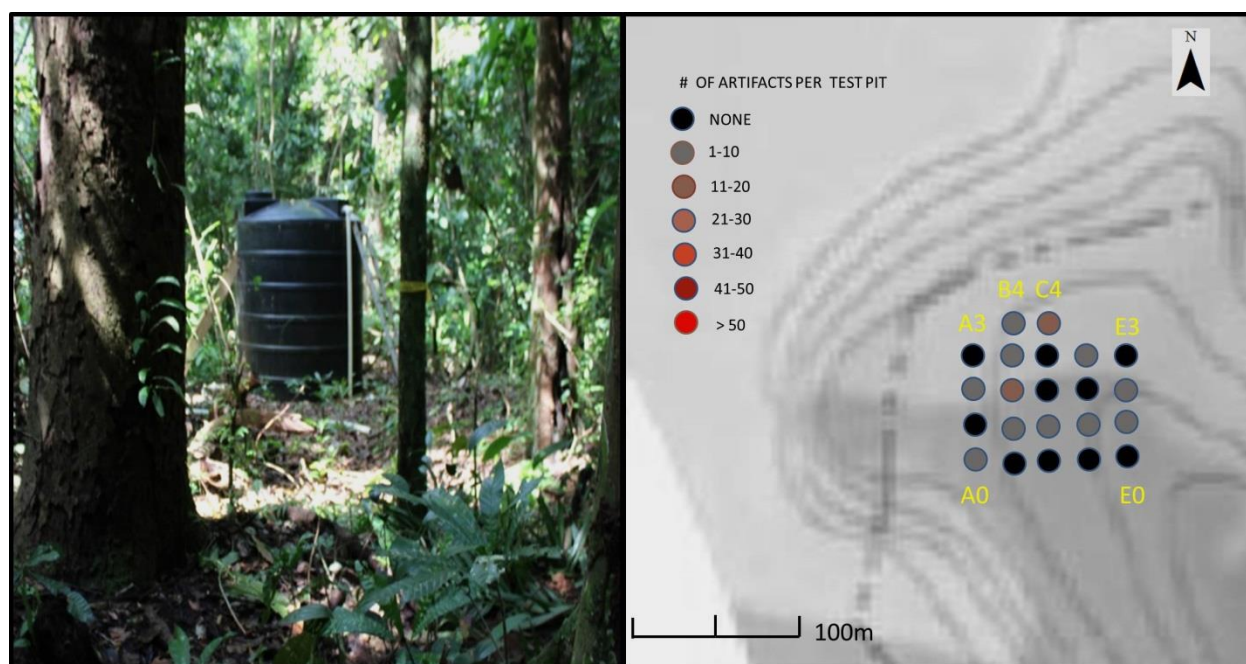


Figure 8.5 Picture of Hill Top 2 area and # of artifacts per shovel test pit

This area was dense with vegetation. There were larger trees, but also smaller ones with secondary growth throughout. The vegetation made surface searches impractical but we were able to determine that there were no mounds in this area. During shovel tests, we noticed a large stone near ST C4. The stone was not cut or shaped like a metate, but it was grooved on one side with a flat surface on another side (specimen L9). As with the pedestrian surveys in this vicinity, the STs indicated a spike in artifact concentration compared to other areas. From 22 STs, 62 artifacts were recovered. Of these, 59 were ceramic body sherds (eroded=18, no ID=41). There

were also several undiagnostic rim sherds with some small amount of red slip remaining on them. We also discovered one worked lithic chert flake in a test pit at about 10-20 cmbs (Specimen L5).

While all the sherds were undiagnostic, many were not eroded. I felt these were possibly utilitarian in nature. Like the HT1 area, several sherds were black all the way through indicating sooting or possible incomplete oxidation. Although no test pit concentration reached the $n=30$ threshold, I decided to conduct further investigate here due to the high concentration of materials from two test pits in close proximity, the large stone on the surface, and the large number of surface sherds previously found in the pedestrian survey. I designated this area as a location to place a unit.

8.2.4 Flood Plain Area

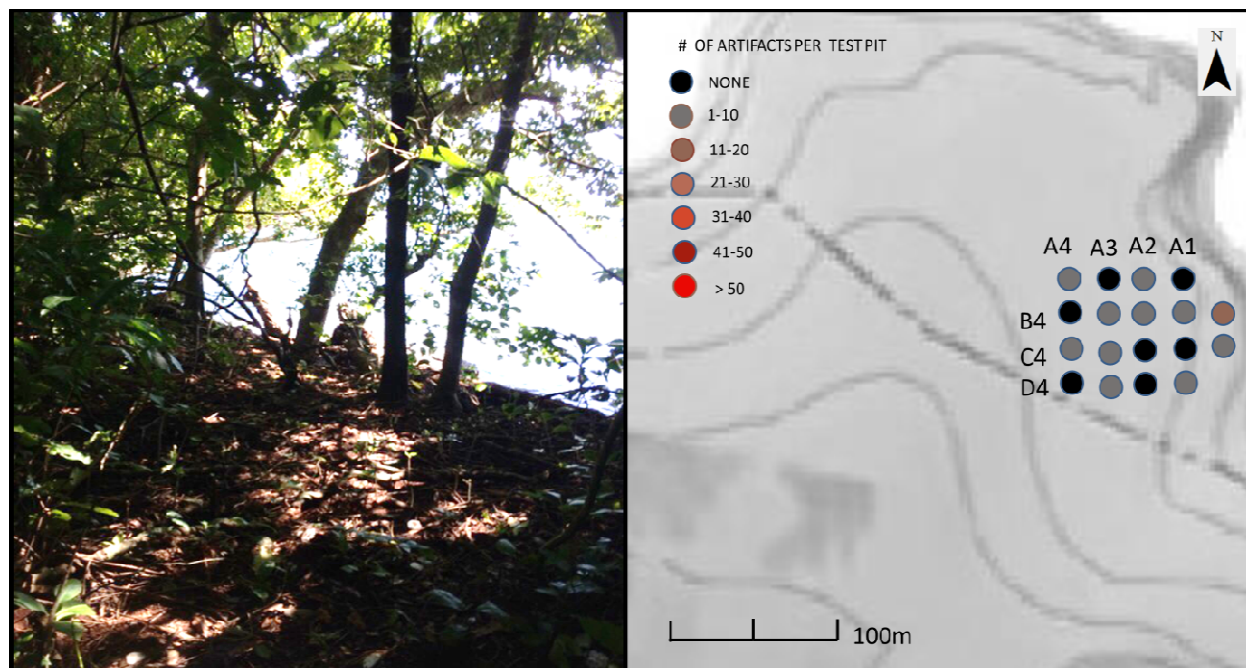


Figure 8.6 Picture of Flood Plain area and # of artifacts per shovel test pit

This area was composed of smaller trees that were part of the secondary forest on the island. The surface was covered with vines and leaves, but some surface artifacts were discernable from the surface. The vegetation on the surface also indicated that some general pooling and slow draining was also occurring in the center of the area. Fifty six artifacts were recovered from the 18 shovel test pits in this area. Of the recovered artifacts, 41 were eroded body sherds and 15 were categorized as No ID. The shovel tests in this location provided a mixed result that led us to believe the ceramics here were generally a result of erosion from higher elevation areas. The spatial and temporal distribution appeared random. There were no diagnostic artifacts here. Due to this, and the lack of STs with major concentrations of artifacts, we excluded this area from further investigation.

8.2.5 Pier Area

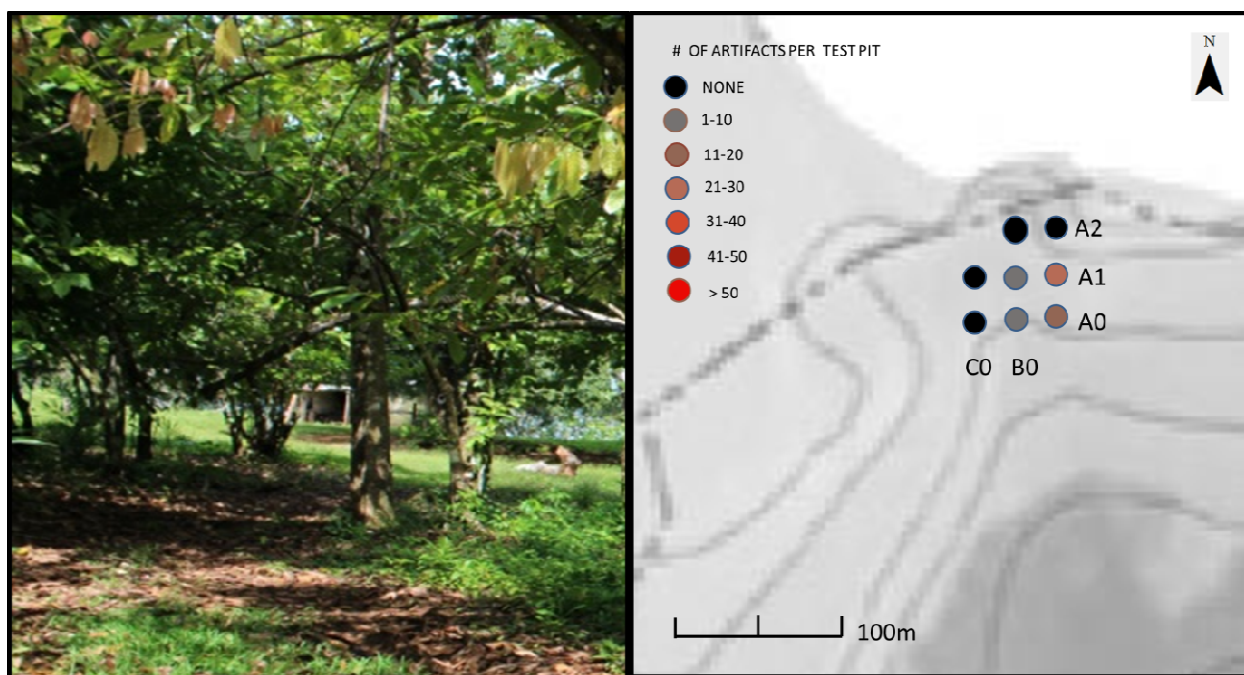


Figure 8.7 Picture of Pier area and # of artifacts per shovel test pit

This area was located between two surrounding beaches. The current boat pier is located on the beach to the east, while the western part of the island was accessible through the beach to the west. Although we found little evidence of surface artifacts here, we decided, due the flat area, and the proximity and open access to the beaches, to do STs in this location. Part of this area was disturbed with road cuts, farming on the western hill, and the house of the former residents that was still located in this area.

The composition of the ST sediment in this area was varied. The ones under the shade of trees where similar to other ones on the island, but the ones closer to the house were hard packed with dry red clay intermixed with small amounts of rocks. This was possibly fill from more modern building activities. This was typical until about 30 cm below surface where larger rocks

became the norm. There were two shovel tests here with a large number of eroded body sherds. One shovel test crossed the 30 sherds threshold with a number of varied sherd textures and different thicknesses up to 10 mm. Several of the sherds in this test pit had heavy sooting. A different shovel test had several very thick sherds close to the surface that were not indicative of any of Linares' phase descriptions. Another test pit had a possible diagnostic rim sherd that was associated with the San Lorenzo phase (specimen C3), but it was relatively shallow. Of the 8 shovel tests we excavated in this location, we recovered 45 artifacts. Of these, 40 were eroded body sherds. The rest were No ID body sherds (n=4) and 1 net weight. Despite the heavy concentration of one ST, we could not get permission from the owner in time to place unit.

8.2.6 Way Point 50 Area

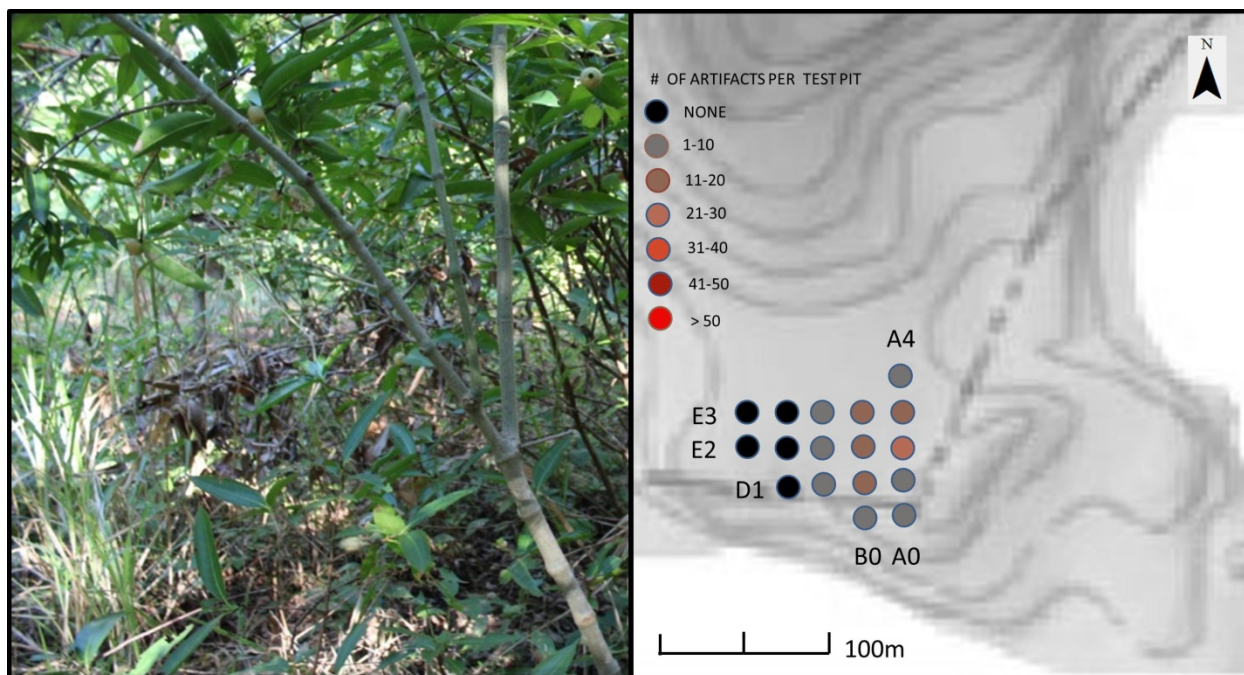


Figure 8.8 Picture of Waypoint 50 area and # of artifacts per shovel test pit

The flat area on the western portion of this peninsula did not have numerous large trees, but it was covered with younger trees and thick weeds and tall grasses. The ground looked undisturbed, but the northern side of the test pit area was near a road cut and some cut tree piles that had been bulldozed close to this area. Shovel test concentrations in this area was generally higher than most other areas. The eastern portion of this area had five STs with high concentrations of cultural material. Of these, two adjacent ST had possible Burica and San Lorenzo phase diagnostic sherds (specimen C4, C5) in close proximity to an axe (specimen L6), but at relatively shallow depths (0-20 cmbs). Several STs also had some sherds with some possible sooting/oxidation. Of the 17 STs in this area, we recovered a total of 102 artifacts. Of these, 67 were eroded body sherds and 29 were No ID sherds, one of which was a rim. Due to the high concentration of artifacts in close proximity, this area was designated for further investigation.

8.3 Unit sampling results

Our shovel tests did not result in any evidence of stratified occupational phases on the basis of diagnostic materials. Several areas did show spatially limited concentration areas of “utilitarian” assemblages that were associated with small lithics and some blackened body sherds. We considered these areas possible houselots, defined as “a sample of artifacts which were once connected to different activities which are assumed to have been at least partially domestic in nature,” that warranted more investigation (Palumbo 2009: 39). The areas we designated, like Linares’ (1980) description of habitation areas, were also devoid of angular rocks. The following sections detail the results of the two 1 m x1 m units that were excavated.

8.3.1 WP50 Unit Data (Unit 1)

A 1 m x 1 m test unit was placed in the area between shovel tests A2 and B3. This was done in an attempt to stay close to the highest area of sherd concentration, but also to get some distance away from large tree roots from nearby trees. The unit was excavated in 10 cm arbitrary levels down to bedrock. Aside from the initial 10 cm layer of hummus below the surface, there were no distinct natural or cultural stratigraphic layers. There were no features in the unit. Increasing small rock layers were present below 30 cmbs, but these appeared random. The color of the stratigraphy below the dark brown humic layer (7.5YR:2.5/2) slowly transitioned to a dark reddish brown (5YR: 3/3) to an eventually yellowish red (5YR: 4.6) before bedrock (70 cmbs).



Figure 8.9 Picture of WP50 unit (S wall)

A total of 114 artifacts were recovered in the unit from surface level (10 cmbr) to 50 cmbs. Several were lithics (n=3), but most were ceramic sherds. Of these, 56 were clearly

identifiable, while the other 54 were fragmented “ceramics” of different composition and shape. There was no other type or artifact (shell, bone, etc...) found in the unit. The vertical distribution of the artifacts started from the surface down to 40 cmbs. A small number of artifacts were present from the surface down to 10 cmbs (n=14, 48.6 grams total), and then increased from 10-20 cmbs (n=36, 375 grams) to 20-30 cmbs (n=58, 368 grams) where they peaked in concentration. Following this peak, there was a noticeable drop in artifact concentration numbers between 30 and 40cmbs (n=6, 87.3 grams). No artifacts were found below this level.

The ceramics were almost all eroded and ranged in surface paste color from buff to dark reddish brown. No slip was found on any of the ceramics recovered from the unit. The thicknesses ranged from as thin as 4mm all the way to one piece that was 18mm thick. Some of the “frags” were anomalous in shape (specimen C6) with indentations as if possibly shaped. There were several possible diagnostic rims in the unit. In level 1, there was an eroded body sherd that resembled a Burica phase ceramic (specimen C7) with diagonal incisions. In level 2, there was a diagnostic rim sherd (specimen C8) and a body sherd (specimen C9) indicative of the San Lorenzo phase. In level 3, there was an undiagnostic handle (specimen C10) of similar composition to specimen C8. The final rim sherd (specimen C11), was highly eroded, but resembled the possible shape of either a Burica or Chiriquí phase rim. Either way, this implied a discordant deposition.

As far as lithics, there were only two small smooth oval hand stones (20-40cmbs) and some small quartz flakes (0-20 cmbs) that represented possible cultural materials. These stood out in comparison to the other small rocks and stones in the unit. Quartz is used as temper in some of the ceramics here, and according to Linares (1980), polishing stones are used as a way to smooth the surfaces of some ceramics.

In summary, I interpreted the unit to represent a possible “activity” area of some sort, but not a residential location. The lack of sooted jar fragments, broken metates, abundant charcoal and organic-rich deposits, or large amounts of chipped stone in association with this location made this unlikely. While I initially thought the large springs on either side of this location would isolate the area, the diagnostic items recovered indicated a possible reversed cultural deposition. This result led me to believe that many artifacts here were due to erosion from heavy rainfall.

8.3.2 HT2 Unit Data (Unit 2)

A second 1 m x 1 m test unit was placed on Hill Top 2 approximately 15 m northeast of ST B2. Again, this was done to stay close to the highest area of sherd concentration, but also to get some distance away from large tree roots from nearby trees. I excavated unit 2 in 10 cm arbitrary levels. This unit had a humic layer of approximately 15 cm. The levels below this dark brown layer (7.5YR:2.5/2) slowly transitioned to a dense dark reddish brown (5YR: 3/4) clay. The color transition continued to an eventual yellowish red (5YR: 4.6) color before reaching bedrock at around 60cmbs.



Figure 8.10 Picture of H2 unit (S wall)

Like Unit1, there were no distinct natural or cultural stratigraphic layers. There were moderate amounts of roots down to about 20 cmbs, and small amounts of random rocks throughout. The unit was unlike the surrounding shovel tests that had more and larger rocks in the shovel tests. This may have been indicative of the sweeping clear of rocks that Linares attributes to domestic areas (Linares 1980). There was a feature in this unit. In level 3, there was a discernable layer of intermittent ash which extended into the walls. In the same level, we also found numerous, hard, granular clay pieces of different sizes that were unlike the surrounding matrix.

While Unit 1 had a total of 114 artifacts, this unit had almost double that amount. There were a total of 211 artifacts recovered from surface level (10cmbr) to 50 cmbs. We recovered

lithics (n=21) from the unit, but most artifacts were eroded ceramic sherds (n=190). Of the ceramic sherds, 10 were rims, while the remainder was body sherds. There was no other type of artifact (shell, bone, etc....) found in the unit. The vertical distribution of the artifacts started from the surface down to 50 cmbs. A large number of artifacts were present from the surface down to 10 cmbs (n=85, 453 grams total). The concentration remained relatively similar in level 2 (n=80, 444 grams), but gradually dropped in level 3 (n=24, 210 grams). The concentration continued to drop in level 4 (n=7, 40 grams), but rose slightly in level 5 (n=11, 21 grams) before becoming sterile in the final level.

The ceramics were almost all eroded. The surface paste color ranged from buff to dark reddish brown. No slip was found on any of the ceramics in this unit. The thicknesses ranged from 3 mm to 10 mm. A small number (n=10) of sherds in level 2 of the unit had evidence of sooting. No ceramic sherds could be positively classified with certainty, but some rim shapes gave some indication to probable phases. In level 1, there were several eroded body sherds that resembled the Chiriquí ceramic phase (specimen C12). In level 2, another rim (specimen C13) looked like a possible Villalba Red streaked rim from the Chiriquí phase. The remainders of the rims were too eroded to classify.

As far as lithics (n=11), most were small flakes of different colors (greenish, bluish, beige) that showed some possible evidence of working. They were deposited intermittently at all levels down to 50 cmbs. Some larger specimens stood out. Close to the surface in level 1, we found a tri-face white quartz artifact (specimen L7) along with a greenstone artifact (Specimen L8) showing signs of a bulb percussion. A pitted, cracked hand stone, similar to specimen L4, was also found in the level 3.

The cultural material concentrations in the stratigraphic levels did not suggest a multiphase occupation in this area. But, based on several possible diagnostic sherds and the overall composition and thicknesses of a large number of ceramics close to the surface, I believe this area may have been a possible domestic farmstead associated with the Chiriquí period, or post-contact period. I think it is probable that the large “shaped” stone (Specimen L9) on the surface nearby was used for milling, while the other lithics in the unit could have resulted from reshaping tools. Additionally, the ash layer feature including the “burnt” clay and sooted sherds in association could have represented “assemblages [that may have] reflected domestic areas (a common suspicion in this area of the world)” (Palumbo 2015, personal communication).

In comparison to habitation areas that Linares (1968, 1980) described in her work, I think this is a valid argument. Assuming residential structures were not on or directly above the mounds in her site, her habitation area possibilities were described as “meager” (Linares 1968a:7), even in comparison to the unit I excavated on Hill Top 2. One of her pits (Linares 1968a) in a flat area close to the mounds only had 20 cm of cultural deposit. She did not describe the cultural material, nor were there any other details about this pit in her work. Her 1971 study did no better at elucidating her designated habitation area away from the mounds. The only detail she gives about her excavation in this area was that no lithics or trade wares were found there.

In conclusion, we were able to excavate two 1 m x 1 m units in two different areas on the island. The unit locations resulted from a process that involved the pedestrian surveys leading to targeted areas for shovel tests, which resulted in a couple of areas of high cultural material concentration. The two units were in different elevation zones and reflected two different contextual realities. While unit 1, located in the low elevation coastal zone, reflected an

inconclusive temporal deposition due to possible erosion, unit 2's location on the hill top and its resultant cultural stratigraphic data was more certain.

Even though unit 1 data was inconclusive for interpreting the cultural aspects of the WP50 area, it still allowed us to understand that the possibility of extended or nucleated habitation on this part of the island was unlikely. In comparison, unit 2 data, with twice the amount of cultural material as unit 1, and no questions of disturbed deposition related to erosion, gave us more conclusive data for interpretation. The combination of several factors such as late phase ceramics, small amounts of tools, and the possible ash feature, allowed me to interpret the concentration on Hill Top 2 as a possible, albeit small, late phase occupation outside of Linares' defined site.

9 ARTIFACT ANALYSIS

A total of 645 artifacts were recovered in this study from the trails, springs, and other investigated areas. The objective of the analysis of these artifacts was to 1) identify diagnostic ceramics based on known classifications and 2) to provide descriptions of representative samples of the materials recovered. The following section details some selected representative artifacts that were found during the research. The lack of, all but a small number, of diagnostic artifacts precludes the use of any statistical analysis for this study. The information related to artifacts will detail a description, associated phase, provenience, classification and comments. Only ceramics and lithics will be detailed as those were the only types of artifacts found during the study.

9.1.1 *Ceramics*

There were a total of 618 ceramic artifacts in the recovered assemblage. Of these, 52% (n=319) were eroded sherds. A large amount of smooth body sherds were identified to the Chiriquí phase (27%, n=165) and the remainder (20%, n=127) were non diagnostic rim sherds and smooth body sherds that were categorized as No ID. I did not use plain ware classification types that Linares designated for her non painted wares, because most No ID ceramics in the assemblage were unpainted body sherds where no vessel form could be discerned. Additionally, there was no way to further analyze these due to variance of temper and surface color as previously discussed. The small numbers of No ID unpainted rims were also undistinguishable. They were basic rounded shapes that could have been attributed to any of the phases. Because of this, I chose not to use the plain ware classification in this study. There were only seven

diagnostic rims and three handles that allowed for identification of possible chronological phase information for the assemblage. The size of rims did not allow for estimated diameter measurements. The diagnostic specimens are detailed below.

Specimen: C1

Description: Rope shaped handle, have been found on tall tripods (20-30 cm.) with small bodies and tall hollow legs, short, and sharply everted rims

Phase: Chiriquí, AD 1100-1500 (Linares 1968)

Provenience: Surface find, WP50 area trail on western slope above spring

Classification: Possible Villalba Red Streaked (Corrales 2000:343)

Comments: Similar to tripod fish group (McCurdy 1911:84, fig. 138).



Specimen: C2

Description: Rim, thick variety, pointed rim type usually found on large globular jars

Phase: San Lorenzo, AD700-1000 (Linares 1968)

Provenience: HT1, ST B2, 20-30cmbs

Classification: Possible Caco Red Slipped (Corrales 2000:330)

Comments: For example see Linares 1968a:27, fig 17.c

Specimen: C3

Description: Rim, open bowls with concave walls terminating in rounded or flat lip

Phase: San Lorenzo, AD700-1000 (Linares 1968a)

Provenience: Pier Area, ST A0, 10-20

Classification: Zapote Red Banded (Corrales 2000:335)

Comments: For example see Linares 1968a:36, fig. 24.d



Specimen: C4*Description:*

Rim, normally associated with globular jars

Phase:

San Lorenzo (AD700-1100), Linares 1968a

Provenience:

WP50, ST A2, 0-10cmbs

Classification:

Possible Aroyo Polished Line (Linares 1968a)

Comments:

For example see Linares 1968a:24, fig. 14.c

Specimen: C5*Description:*

Rim, one of several S shaped rims belonging to variety of bowls

Phase:

Possible Burica, AD300/500 – 800 (Linares 1968a)

Provenience:

WP50, B2, 0-10cmbs

Classification:

Possible Isla Palenque Maroon slipped

Comments:

For example, see Linares 1968a:20, fig. 12.n



Specimen: C6

Description: Anomalous hard clay pieces
Phase: Unknown
Provenience: WP50 unit, 20-30 cmbr
Classification: N/A
Comments: Shaped pieces of hard clay, dissimilar from matrix. Possibly daub.

Specimen: C7

Description: Body sherd with possible diagonal incisions
Phase: Possibly Burica, 300/500AD-800
Provenience: WP50 unit, 0-10cmbs
Classification: Possible Isla Palenque Maroon slipped
Comments: For example, see Linares 1968a:20, fig. 12



Specimen: C8

Description: Rim, open bowls with concave walls terminating in rounded or flat lip
Phase: San Lorenzo, AD700-1000 (Linares 1968a)
Provenience: WP50 unit, 10-20 cmbs
Classification: Possible Zapote Red Banded (Corrales 2000:335)
Comments: For example see Linares 1968a:36, fig. 24.c

Specimen: C9

Description: Part of sherd with applique decoration
Phase: Possible San Lorenzo or Chiriquí (AD700-1500)
Provenience: WP50 unit, 10-20 cmbs
Classification: Unknown
Comments: Decoration similar to example from Linares 1968a:36, fig. 35.e



Specimen: C10

Description: Handle
Phase: Unknown
Provenience: WP50 unit, 20-30 cmbs
Classification: Unknown
Comments: Similar in composition to specimen C9

Specimen: C11

Description: Rim
Phase: Chiriquí, AD1100-1500 (Linares 1968a)
Provenience: WP50 unit, 20-30 cmbs
Classification: Possibly Tarrago biscuit
Comments: See Linares 1968a:39, fig 26.a



Specimen: C12

Description: Rim

Phase: Chiriquí period

Provenience: HT2 unit, 0-10 cmbs

Classification: Possibly Tarrago biscuit

Comments: For example, see Linares 1968a:39, fig 26.a



Specimen: C13

Description: Rim, folded rim edge is diagnostic of phase

Phase: Chiriquí phase

Provenience: HT2 unit, 10-20 cmbs

Classification: Possibly Villalba read streaked

Comments: For example, see Linares 1968a:42, fig. 27.f



9.1.2 Lithics

A total of 35 lithics artifacts were recovered from the research on the island. The lithics varied in size and type from small flakes all the way to a possible large milling stone. Most lithics seemed to be discrete tools, but there were a small number of flakes in the Hill Top 2 area that may have been debitage from reshaping. There were no cores, or extensive amounts of debitage found in any of the areas to indicate specialization or lithic production on the island. Ranere's (1980) tool typologies were used for the classification. Most appeared to be related to possible food procurement and processing functions. Discernable raw material was described, along with provenience information.

Specimen: L1

Tool Type:

Possible nutting stone

Description/material:

Unknown

Provenience:

Surface, trail near WP50 area

Comments:

For example see Linares 1980:342, fig. 8/11.j



Specimen: L2*Tool Type:*

Possible net-weight

Description/material:

Unknown, common cobbles on island

Provenience:

Surface, WP50 trail

Comments:

For example see Linares 1980

Specimen: L3*Tool Type:*

Celt, type B

Description/material:

Possibly andesite

Provenience:

Hill Top 1 surface, between ST C1-D1

Comments:

Polished stone axes, especially the larger varieties, used in forest clearing (Griggs 1995:205), or agricultural activity



Specimen: L4

Tool Type:

Possible mano fragment, or milling stone

Description/material:

Unknown

Provenience:

HT1, ST C2, 0-10 cmbs

Comments:

Cracked stone completely irregular in shape and composition to surrounding stones



Specimen: L5

Tool Type:

Possible blade

Description/material:

Possibly chert

Provenience:

HT2, ST A2, 10-20 cmbs

Comments:

Dissimilar material to any recovered, no flakes of this material recovered in area



Specimen: L6

Tool Type:

Axe

Description/material:

Possible andesite

Provenience:

WP50, ST A2, 0-10 cmbs

Comments:

Signs of reshaping or reuse as grounding or pecking tool



Specimen: L7

Tool Type:

Unknown

Description/material:

Quartz

Provenience:

HT2 unit, 0-10cmbs

Comments:

“crystal s are often found in Panamanian sites due to the fact that they were used as borers, gravers, chisels, wedges, ceremonial objects, and jewelry” (Griggs1995:218)



Specimen: L8

Tool Type:

Unknown

Description/material:

Possible green chalcedony flake

Provenience:

HT2 unit, 10-20cmbs

Comments:

None



Specimen: L9

Tool Type:

Possible milling stone

Description/material:

Unknown

Provenience:

Hill Top 2, surface, 15m NE, ST C4

Comments:

Grooved on one side, perpendicular side possibly milling edge



10 DISCUSSION AND CONCLUSION

In conclusion, there is no evidence on Isla Palenque of a large, segregated community such as Coto, Costa Rica, as described by Frost (2009). What this study does make clearer is that there were only several small areas outside of Linares' described site on the island which offer some possibility of limited habitation. The areas on the lower elevations closer to the coast are doubtful given the possible disturbed nature due to erosion and the lack of conclusive evidence indicating settlement in those locations. Hill Top 2 gives more evidence of a possible habitation locale, but if this were the case, the cultural remains only indicate the likelihood of a small farmstead that may have been associated with a Chiriquí or post-contact occupation.

I suggest that the constrained land area, limited by steep gradients and fresh water supplies, did not allow for the possibility of a large scale and extended settlement on the island. The limiting effect of the landscape on the external areas for habitation could have affected the nucleation on the center of the island as described by Linares. But, I believe this suggest different possibilities for the nature for the settlement other than the sole concept of a "chiefdom" centered on the island with a long term extended occupation. There are several lines of evidence that suggest that Isla Palenque may have been a specialized area where people visited, but may not have settled permanently in a large scale. One factor is the limited subsistence data on the island. The lack of significant numbers of fishbone or shell in comparison to other sites leaves much doubt to long term continuous occupation. Lithics also present a big question mark. Although late phase settlement is suggested by an increase in tool use on the island, the evidence does not materialize in the record until the later part of the San Lorenzo phase. This implies that people

may have visited the island for hundreds of years without necessarily nucleating or working to sustain and subsist for themselves.

Another factor is the continued lack of evidence related to trade found on the island itself. Linares only speculated on the possibilities of trade, but my study did not reveal any additional conclusive evidence that manufacturing, specialization, or large scale storage locations existed on the island. There were no large amounts of charcoal or high frequencies of broken ceramics indicating the possibility of kiln wasters. No large scale storage vessels were found. No exotic external trade items were found to suggest long-term connections. No evidence of warfare was discovered in my study. Additionally, given the probable availability of resources (i.e., palm fruit, fish) in many other coastal locations, I do not believe that there is still any strong evidence to suggest the possibility of Isla Palenque as a “center” of power in the Gulf where a “chief” accumulated resources, and maintained dominion through trade over the surrounding areas.

Despite this, the scale of my study does not rule out the possibility of a dual settlement pattern. This social organization may still exist, but much work still needs to be done to understand a different scale that considers Boca Brava or the area within Linares’ defined site. One possibility could allow for a separation of the secular and religious duality that Frost (2009) suggests with the majority of the population living on Boca Brava as opposed to Isla Palenque. The other possibility, as originally suggested by Linares, could indicate a segregated organization within the original defined site locality.

A final, but important possibility is also elucidated by the results of this study. Isla Palenque’s occupants may not have fit any previous settlement models proposed. This highlights the possibility that cultural diversity may have been the norm in the region. Settlement patterns, whether considered “chiefly” or not, may have been organized in different ways between sites

and certainly during different time periods. The settlement organization in the Pacific Gulf coast may have worked differently than those proposed by Frost or any other researcher. For example, the organization related to one of Isla Palenque's settlement periods may have resembled something more similar to what we see today where the people are not compressed by constant warfare. Like the island today, the specific landscape may have been an allure to many of the Gulf coast people during pre-historic times where visiting the island was part of a seasonal and leisure experience. I find that this scenario reflects a possibility that pre-historic people in this region may have been more like ourselves than we may have previously imagined.

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